

News & Reviews

106... News

The latest news on modelling products from around the world

112... Previews

An initial look at new kits that we have received for review

115... Special Preview

Hasegawa 1/32 scale Junkers Ju 87G Stuka Kanonenvogel

118... Reviews

The Review Team builds a selection of the latest kits

128... Accessories

Some of the latest from Aires, Eduard, Quickboost, and West Coast Hobbies

133... Decals

Some of the latest from AVI Print. Elite Decals, Euro Decals, Galdecal, Mini Print, Red Roo Decals, and Rising Decals

Regulars

- 184... Bookshelf
- 189... Readers' Classified Ads
- 190... Feedback
- 195... Events Diary
- 196... Shop Guide & Web Guide
- 198... Address List & Advert Index

Competition

189... MPM/Special Hobby Competition



Features



138 **Great Expectations**

While Tiny Tim gorged on goose, Gary Hatcher repaired to a draughty atticwith a test shot of the Airfix TSR.2 and had an anti-flash white Christmas



158 Junkers D.I

Aspects of a Remarkable Aeroplane by Harry Woodman

Attacker!

Now largely forgotten, the Supermarine Attacker was Britain's first carrier jet. David Batt builds the latest 1/48 scale release from Classic Airframes, with profiles and artwork by Jerry Boucher



Friday the 13th

Unlucky for some, but not Jacques Niot, who builds Fonderie Miniature's 1/48 scale Handley Page Halifax B.III. And who better? He made the patterns for it!



172 New Lamps for Old

Tom Hall polishes up Revell's elderly 1/32 F4U Corsair



180 Fabulous Fokker

Simon Uglow builds Eduard's 1/48 scale Fokker D.VII (OAW) kit and declares it "something special"



IPMS Helsinki Open '05

Photos by Kai Asplund from the IPMS competition held at the Finnish Aviation Museum

Published by SAM Publications

Media House, 21 Kingsway, Bedford MK42 9BJ Telephone: +44 (0) 8707 333373 Fax: +44 (0) 8707 333744 Email: mail@sampublications com

But the above address for back issue orders, subscriptions, enquires or book orders. Note that we cannot undertake research into specific or general aviation queries and that there may be some delays in responses on the contributors, as they are not based at the editorial address.

PUBLISHER SAM Publications

MANAGING EDITOR Mike Jerram Email: mike@sampublications.com

DEPUTY EDITOR Gary Hatcher Email: gary@sampublications.com

The editorial emails are GALT to be used for editorial submissions. They are NOT for subscription payments or queries, back issues or Hodelic Datalile orders. Please send all of these to the SAH Publications address detailed at the top of this column.

ART DIRECTOR Simon Sugarhood

AVIATION ILLUSTRATIONS Jerry Boucher (UK). Michele Marsan (Italy)

AVIATION HISTORIANS Harry Woodman (UK)

CONTRIBUTORS THIS HONTH

David Batt (UK); John Bisset (UK); Torn Hall (UK); Gary Hatcher (UK); Jacques Niot (France), Simon Uglow (UK); Harry Woodman (UK)

ACCESSORIES & DECALS REVIEWS

David Francis (UK)

KIT REVIEW TEAM THIS MONTH

Chris Bushridge; Mark Chadbourne, Paul Glaon, James Griffiths, David Holman, Dave Hooper; Paul Janickt; Tim Large, Andy McCabe, Ivor Ramsder; Don Robson, Paul Stockley

ADVERTISING MANAGER Joanna Brooks Tel. + 44 (0) 8707 333 733

PRE PRESS PRODUCTION SAM Publications

PRINT PRODUCTION Swan Print

DISTRIBUTION Magazine Marketing Company If you have problems finding you MMC on + 44 (0) 1483 211222

NORTH AMERICAN DISTRIBUTION

Districor, 695 Westney Rd South, Suite 14, Ajax, Ontario, Canada LIS 6M9 Tel: + 1 (905) 619 6565

© SAM PUBLICATIONS 2006

Arcides, phonographs and drawings published on Scale Arcides Mideller International are protected by oxyright. Reproduction or whole or or part is forbidden without prior authority of the publishers. Opinions expressed by contributors and advertisers are not necessarily those of the editor or publisher. SAM Publications reserves the right to coopend or refuse any absorbsement without giving reasons. Whilst every care is taken to avoid mutakes SAM Publications cannot be fiable in any way for any errors or ominions. Nor can the publisher accept responsibility for the bona fides

omtions, nor case on participation of administration of administration.

Contributions and phongraphic material are velcoses, but must be accompanied by adequate postage to cross return. SAR Publications accept no responsibility for loss or damage to entire tall supplied.

SUBSCRIPTIONS

Cheques/Money Orders in Sterling only made payable to SAM Publications and sent to the address above. Major credit card payment accepted by telephone

Subscription Hotline +44 (0) 8707 333373

AMERICAN SUBSCRIPTIONS

American subscribers can subscribe direct to SAM PUBLICATIONS or through

WISE OWL WORLDWIDE PUBLICATIONS 5674 El Camino Real Suite D, Carlsbad, CA 92008-7130, USA

Tel: + 1 (760) 603 9768 Fax: + 1 (760) 603 9769 Email: info@wiseowlmagazines.com Web: www.wiseowlmagazines.co 9am-5pm Pacific time, Mon-Fri VISA/Mastercard accepted Subscription rates: \$76 surface: \$92 air.

American shops and trade may obti copies from KALMBACH PUBLISHING Toll Free I 800 558 1544 Canadian shops and trade may of copies from GORDON & GOTCH Toll Free 1 800 438 5005

February 2006 (ISSN 1354-0530) published monthly by SAM Pathictions, 2211 Negra Falls Blvd. Negra Falls NY. 14304-5709. Periodicals postage pending Nagara Falls NY. US Posemaster: Send address corrections to Scale Anison. Modeller International, PO Box 365, Williamoriths, NY. 1423

• Questions to Contributors

to her I printed or party you wish to have with any of the contributors to a majorine, they should be made IN WRITING to the SAN Publications dress. Restine the Editor our any of the contributors are at SAN Publications are a duly been and the Editor sale for all enqueres to appreciate this fact and be partent. Please understand that the staff at SEF Publications do not have access to

Into Antonio Montare attendante o arrivan supply o review to promote which in page, for our which po the is appropriate will be given for consideration for nations in the title. My compare, that representation, imparts, distribution or shap which which to have product reviewed within Scale Antarios Maletin International shaded with the effect of the effect of lotter and clearly mark them for the attention of the Editor Conferention of recept of the Editor Conference of the Editor Conference of recept of the Editor Conference of the effect of the street of the Editor Conference of the page 12 for the effect of the street of the Editor Conference of the page 12 for the effect of the street of the Editor Conference of the page 12 for the effect of the street of the Editor Conference of the page 12 for the effect of the street of the Editor Conference of the page 12 for the effect of the street of the page 12 for the effect of the street of the page 12 for the effect of the street of the page 12 for the page the tamples wil he cappied of requested. For all convenients companies we the above applies, but please occurs that the parkage is clearly marked for common is a "tample, free of charge" to reduce the real of conveniency things. Plant you

Company Suppliers Addresses & Enquiries Piezus note that the Editor and staff at SAM Publications cannot help with pu

enquires about contact details for companies, experient or model shape whose products may be monotoned as Scale Anatour Madellar International & the address alternation is not included with the review etc. Plazo chelk the advertisament is not journal for all sociale EE sources and only metast the form directly if 4 is used that there is "No EE socials". We are sorry, but we cannot help with details of companies which do not advertise in this magazine. But note that mother the Editor nor contributors will undertake specific or general proteins recounts for enquerors. Thank you

Next edition on sale 21st Feb 2006

SAM Publications 2006

All rights reserved. No part of this publication may be reproduced or transmitted (including posting to a website) in any form or by any means, electronic or mechanical, including photocopy, recording, or any other information storage and retrieval system, without prior permission in writing from the publishers.

Copyright Warning

Copyright Warning
Due to the growing misuse and breach of copyright apparent on the web SAM Publications gives notice that no-one is permitted to reproduce in any way (in original form or 'modified') anything published in this, or previous editions of this magazine. All design, layout and studio photography is the copyright of SAM Publications. All profiles, scale plans and supporting photographs are the copyright of the individual authors. None of these may be used without prior written agreement from both the author/artist and SAM Publications, Infringement is a breach of international law, so if you see items posted on the web from this magazine other than on the official SAM Publications website (sampublications.com) please advise the publisher immediately.

Editorial

Of Men and Machines

o the Imperial War Museum at Duxford for the official unveiling of the refurbished BAC TSR.2 XR222. The wraps came off before a gathering of invited guests from the TSR.2 development, manufacturing and flight test teams, the volunteers from Duxford Aviation Society who had carried out the restoration, and gentlemen and ladies of the press.

'Who's the little old man in the cap?' a local newspaper reporter asked me as the polythene sheets were pulled away. 'Jimmy Dell.''Oh.'

I have no idea whether this intrepid scribe ever bothered to enquire further, but had he done so he might have discovered that the 'little old man in the cap' was the only person still alive to have flown the TSR.2 as pilot-incommand, the other TSR.2 pilot being Dell's then 'boss,' English Electric/BAC Chief Test Pilot the late Roland 'Bee' Beamont.

Squadron Leader James Dell joined English Electric from the Royal Air Force on New Year's Day 1960, and a year later was appointed Deputy Chief Test pilot, playing a major role in development of the Lightning. His association with the TSR.2 – 'a delight to fly, he told us – was, perforce, brief in the light of the Labour Government of the day's ill-judged and devastating cancellation of the project and immediate destruction of airframes, jigs and tooling. Fortunately, two unflown airframes have survived, the one at Duxford and XR220 at the RAF Museum, Cosford.

Despite the weak but welcome December sunlight, and the happiness of the occasion of the TSR.2's rollout, there was a air of gloom at Duxford, for on the first of the month Ray Hanna, AFC, doyen of the UK warbird scene



Jimmy Dell (Pic: Mike Jerram)



The late Ray Hanna (Pic: Mike Jerram

and founder of the Duxford-based Old Flying Machine Company, died suddenly, aged 77.

A New Zealander, Ray learned to fly in his native land before working his passage by ship to England in 1949 in order to join the RAF, with which he trained on the Percival Prentice, Harvard and Meteor, and flew Balliols, Tempests and Beautighters. After joining 79 Squadron, 2 TAF in Germany he flew Meteor FR.9s in the tactical recce role - a task that enabled him to indulge in the authorised low flying for which he retained a passion! In the early 1960s Ray was a member of the College of Air Warfare's three-ship Meteor F.8 aerobatic team, and in 1965 he joined the newlyformed Red Arrows as Red 3, a year later becoming team leader, a position he was to hold twice, serving four years as Red 1. Post-retirement from the RAF Ray Hanna pursued a career as an airline and corporate jet pilot, and began his warbird display flying career with Sir Adrian Swire's Spitfire IX MH434, an aircraft with which he will forever be associated. It became the keystone of OFMC, which he formed in 1981 with his son Mark, a former RAF Phantom pilot, tragically killed in Spain in September 1999 while flying the company's Hispano HA.1112 Buchon.

Ray will be remembered as one of, if not the, finest display pilots ever, for his meticulously accurate, but ever flowing, lyrical and simply breathtaking warbird displays (and by this writer for the several occasions on which he feared decapitation as he urged Ray 'just a bit lower' for the next photo run!).

A few days before XR222 emerged, another celebrated British flier also made unhappy headlines. Test pilot Neville Duke, every 1950s schoolboy's hero after he won for Britain the World Airspeed Record at 728 mph in 1953 flying Hunter prototype WB188, was

forced to sell a lifetime's memorabilia in order to fund a hip replacement operation for his 85-year-old wife, Eunice, and because of concerns about security and the cost of insurance, the couple having already lost silverware and other mementoes in three burglaries. Neville, who at 83 years of age is still an active pilot (1 was privileged to fly with him once, alas not in a Hunter but in an Edgley Optica), put up for auction his DFC with two Bars (won during his 485-sortie, 28victory wartime service), OBE, the parachute with which he bailed out from his stricken Spitfire over Lake Bracciano in 1944, wartime diaries, the helmet he wore when he broke the airspeed record, his mother's scrapbook of his achievements, and his flying logbooks. The sale raised £138,000 - a couple of weeks' wages for a Premiership footballer. Some way to treat a real hero, eh? The only good news was that the collection is to remain intact, and in Britain.

What, aside from Airfix's launch of the TSR.2 kit (see p.138) has all this to do with modelling? Simply this. Aeroplanes are no more than assemblages of metal, wood, fabric, rubber, and, increasingly, clever composites and smart microchips. Without the people who design, build, fly and service them, right down to the chap who polishes the windscreen or pulls away the chocks, they can do nothing, no not even those supposedly 'autonomous' unmanned aerial vehicles (UAVs) that require battalions of computer geeks and console operators to get them aloft and sustain them there.

As we model them, let's never forget that.

Allias Jerrams

Managing Editor

Soile Anation Modeller International



Section 6

- Sixth in a 12-part series included free with Scale Aviation Modeller International!
- Reinforce your modelling skills!
- Sponsored by Airfix!



Missed any vouchers?

Order back issues (1) V11 Iss 9
 (2) V11 Iss 10 (3) V11 Iss 11



To claim your free binder:

- As a direct subscriber (to SAM Publications) you will automatically be sent a binder when they become available.
- Non-direct subscribers send your 3 vouchers (or photocopies of) with your name and address to:

SAM Publications, Media House, 21 Kingsway, Bedford MK42 9BJ, UK

Missing your FREE Airkraft Guide Section 5? Call the hotline on +44 [0]8707 333 373 or email mail@sampublications.com

Next issue — FREE modellers' guide part 7!

Previews



Scale: 1/72

Kit No: 12406

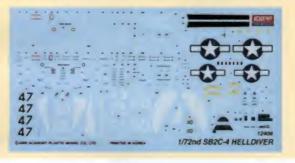
Price: £10,99 Panel Lines: Recessed Status: New Tooling

Type: Injection Moulded plastic

Parts: Plastic 82, Clear 6

Decal Options: 4 Manufacturer: Academy UK Importer: Toyway

Well it's here, and it looks like it has been worth the wait. This is without a doubt the best 1/72 Helldiver around, and is unlikely to be surpassed for some time to come, so stack them up now! With four decal options, beautiful moulding, detailed interior and wheel wells, this gets 2006 off to a flying start for Academy





RFC Personnel

Scale: 1/48

Price: £7.40 Status: New Tooling

Type: Injection Moulded plastic

Parts: Plastic 33 to make 6 Figures

Manufacturer: Eduard

UK Importer: Hannants



Blackburn Ripon Mk II (Floats)

Scale: 1/72 Kit No: MS 102

Price: £16.25

Panel Lines: Recessed

Type: Vacform

Parts: Vacform 12, Injection Moulded Plastic 28

Decal Options: 1

Manufacturer: Broplan

UK Importer: For further information

contact Aeroclub



Sopwith F.I Camel 'William Bar

Kit No: 040 Price: £7.50

Panel Lines: Recessed

Status: Revised Tooling

Type: Injection Moulded plastic

Parts: Plastic 33

Decal Options: 8

Manufacturer: Roden







Folland 43/37 Centaurus Engine

Scale: 1/72

Price: £24.50

Panel Lines: Recessed

Status: New Tooling

Type: Resin

Parts: Resin 17, Metal 17, Vacform Clear 6

Decal Options: N/A

Manufacturer: Magna

UK Importer: For availability contact Magna

models on 01202 624314



Blackburn Ripon Mk II (Wheels)

Kit No: MS 99

Price: £16.25

Panel Lines: Recessed

Status: Revised Tooling Type: Vacform

Parts: Vacform 10, Injection Moulded Plastic 27

Decal Options: 2

Manufacturer: Broplan

UK Importer: For further information





PZL P.24C

Scale: 1/72

Price: £13.87

Panel Lines: Recessed

Status: Revised Tooling

Type: Injection Moulded Plastic

Parts: Plastic 30, Vacform Clear 2 Decal Options: 2

Manufacturer: Broplan

UK Importer: For further information

contact Aeroclub





Grumman FIIF-I Tiger

Kit No: 6045

Price: £44.60

Panel Lines: Recessed

Status: New tooling

Parts: Plastic 33, Resin 15, Metal 19, Etched 13

Decal Options: 3

Manufacturer: Fonderie Miniatures





Grumman OV-ID Mohawk

Scale: 1/48 Kit No: 413 Price: £27.50 Panel Lines: Recessed Status: Revised tooling

Type: Injection Moulded plastic Parts: Plastic 172, Clear 17 Decal Options: 3 Manufacturer: Roder UK Importer: Pocketbond





EDO OSE-1

EDO OSE-I

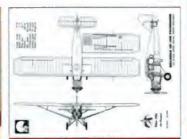
Scale: 1/72 Kit No: 72015 Price: £21.25 Panel Lines: Recessed

Status: New Tooling Type: Resin

Parts: Resin 30, Vacform Clear 1, Etched 28 Decal Options: I

Manufacturer: Olimp UK Importer: Hannants





Bellanca CH-300 Pacemaker

Scale: 1/72 Kit No: 003 Price: US\$20

Panel Lines: Recessed Status: Revised Tooling

Type: Vacform

Parts: Vacform Clear I, Vacform 32, Resin 4

Decal Options: None Manufacturer: Khee Kha

UK Importer: For information on availability contact zdk@mtaonline.net

PZL/ TFK P.24A

PZL/TFK P.24A

Scale: 1/72 Kit No: MS 100 Price: £13.87

Panel Lines: Recessed

Status: Revised Tooling

Type: Injection Moulded Plastic Parts: Plastic 30, Vacform Clear 2

Decal Options: 2

Manufacturer: Broplan

UK Importer: For further information contact Aeroclub

2009145



Fokker D.VII (OAW) 'Walter Blume

Scale: 1/48 Kit No: 418

Price: £17.50 Panel Lines: Recessed

Status: Revised tooling

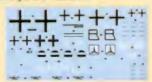
Type: Injection Moulded plastic

Parts: Plastic 88

Decal Options: 6

Manufacturer, Roden

UK Importer: Pocketbond



Republic P-43 Lancer



1/72

Republic P-43 Lancer

Scale: 1/72

Kit No: 72061

Price: £15.50

Panel Lines: Recessed

Status: New Tooling
Type: Injection Moulded plastic

Parts: Plastic 30, Vacform Clear 2, Etched 5,

Resin 15

Decal Options: 4

Manufacturer: Pavla

UK Importer: Hannants



Made in Czech Republic

Fiat G.55 Centauro "Sotoserie O'



Fiat G.55 Centauro Sottoserie 0

Scale: 1/72

Kit No: 72110

Price. £11.99

Panel Lines: Recessed

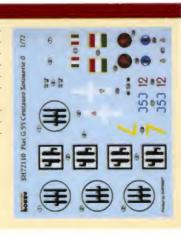
Status: Revised Tooling

Type: Injection Moulded Plastic Parts: Plastic 26, Resin 20, Etched 17,

Vacform Clear 2

Decal Options: 3

Manufacturer: Special Hobby





Roland C.II Walfisch

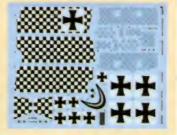
Kit No. 1116 Price: (21.30

Panel Lines: Recessed

Status: New tooling Type: Injection Moulded plastic

Parts: Plastic 60, Clear 7, Etched 54 (16 colour), Kit also includes express masks and

bonus set of figures Decal Options: 2 Manufacturer: Eduard UK Importer: Hannants





A-35B Vengeance 'Armee de l'Air

Scale: 1/72 Kit No: 7249 Price: £11.10 Panel Lines: Recessed Status: Revised Tooling

Type: Injection Moulded Plastic Parts: Plastic 26, Resin 16, Etched 7,

Vacform Clear 2 Decal Options: 2

Manufacturer: Special Hobby UK Importer: Hannants





Kit No: 72006

Panel Lines: Recessed Status: Revised Tooling

Type: Injection Moulded Plastic

Parts: Plastic 30, Clear I Decal Options: 2

Manufacturer: Olimp UK Importer: Hannants





Koolhoven FK-51

Scale: 1/72 Kit No: 7264 Price: £11.10

Panel Lines: Recessed

Status: Revised Tooling

Type: Injection Moulded Plastic

Parts: Plastic 35, Etched 28, Resin I,

Vacform Clear 2

Decal Options: 4

Manufacturer: Azur UK Importer: Hannants





Albatross Dr. I Triplane

Kit No: 004

Price: £13.40

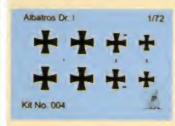
Panel Lines. Recessed

Status: New Tooling

Type: Injection Moulded Plastic Parts: Plastic 38, Etched 14

Manufacturer: Elf

UK Importer: Hannants







DFWT28 Floh

Scale: 1/72

Kit No: 001

Price: £10.80

Panel Lines: Recessed

Status. New Tooling

Type: Injection Moulded Plastic Parts. Plastic 28, Etched 9

Decal Options: 1

Manufacturer: Elf

UK Importer: Hannants



Buffalo model 339-23 "In RAAF and USAAF Colors"

Brewster Buffalo Model 339-23 'RAAF and USAAF

Scale: 1/48

Kit No: 48057

Price: £20.90

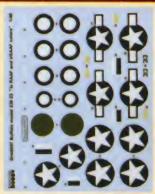
Panel Lines: Recessed

Status: Revised Tooling

Type: Injection Moulded Plastic Parts: Plastic 62, Resin 14, Clear 7, Etched 32

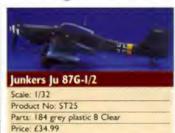
Decal Options: 4

Manufacturer: Special Hobby



Special Preview

Hasegawa Junkers Ju 87G-1/2



he lu 87 is not a small aircraft and on opening the box the first thing that strikes you is the large quantity of plastic that fills it to the top. A careful perusal of the instructions and the plastic parts shows that Hasegawa have taken note of some of the criticisms on their earlier 1/32 kits - for example the tailwheel assembly is made up from five parts which looks very realistic when compared to the simpler assembly in the Me 109. The 25-piece cockpit shows a very good level of raised detail which will look amazing with careful dry-brushing and some washes.

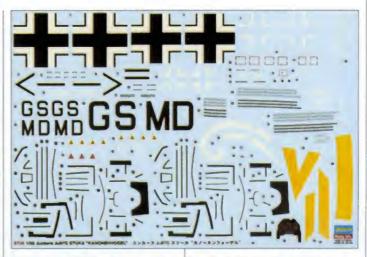
There are a few nice touches that show some thought has gone into making this an easy kit to assemble. These include a very robust wing spar which ensures the correct angles of the cranked wing as well as adding strength to the wing assembly.

Other nice touches are the masks printed on the instructions for the splinter camouflage and the 44 decals for the complicated canopy framing of the Stuka.

The only parts of the kit that I did not like were the cannon barrels, which have been hollowed out, but moulding limitations mean











that the numerous small holes in the muzzle brakes are represented by small recessed circles which do not look right.

Clever engineering means that future variants are inevitable and I am sure we will see a flood of parts and decals for this range from the aftermarket manufacturers starting with Eagle Cal's two new sheets for the G variant.

The preview kit arrived a few weeks before its official UK release and included a white metal figure of Obstlt Rudel and his pet German Shepherd, which items are limited to the first production run.

David Francis





SAMI EXCLUSIVE

Great Expectations

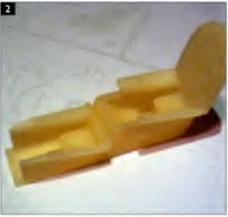
While Tiny Tim gorged on goose, Gary Hatcher repaired to a draughty attic with a test shot of the Airfix TSR.2 and had an anti-flash white Christmas



8Ber



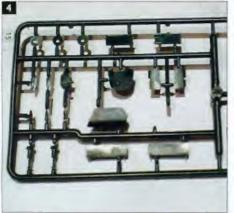
The single piece for the main undercarriage and weapons bays



The cockpit tub



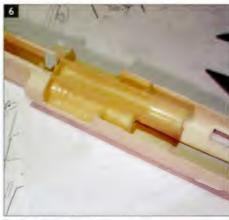
Some of the components, including intakes and trunking



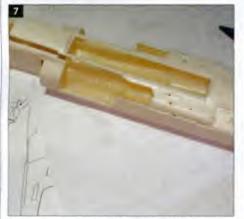
Undercarriage parts



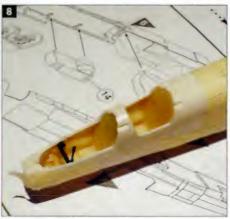
The wing assembly promises to be an excellent fit



Test-fitting the bomb bay



The lower fuselage section slots neatly over the insert



Fuselage and cockpit tub assembled



Airfix have designed the lot with refreshingly few visible fuselage seams

Cutting To The Quick

eceiving a carrier bag of different coloured sprues, accompanied by a sheaf of photocopied instructions and neither decals or box may not be everyone's idea of an ideal Christmas present, but when it constitutes an early preview of the year's most talked about kit, and the instructions are annotated in the hand of Mr Trevor Snowden, a chap is liable to look up and take notice. Thus, after collecting the goods in a foggy exchange with a colleague at Ferrybridge Services, I scuttled home and spent until three in the morning in a state of almost narcotic hypnosis gluing them together. It was a couple of days before Christmas 2005. The deadline for publication was very early in January, so with all manner of seasonal visits and journeys on the calendar, I had to get my skates on.

Before continuing in this vein, allow me to interject a couple of points. Firstly, this is a test shot. While releasing such an item for review suggests a degree of confidence on the part of the manufacturer, it would be unfair of me to present it as other than a very early pre-production test shot, and therefore I will comment little on the fit of the parts, but rather attempt to give an idea of what the final production kit promises to be like. Secondly, and for the benefit of those few readers who haven't already skipped the bulk of these ramblings to discover my conclusion, it is a very good model, and the final version promises to be even better.

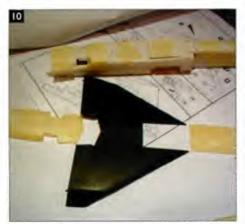
Cutting Even Quicker

I am a dreadful modeller. It takes me months to build anything, so I had to work quickly to get this finished in time. Fortunately Airfix facilitate the task with the engineering of the kit. Both top and bottom are designed in such a way as to leave minimal seams to clean up, and the whole main undercarriage bay assembly – even at this early stage in its genesis – was a good tight fit.

Most of the pieces present were cast in a hard disagreeable plastic, either black or cream in colour, which ignored liquid poly completely, and only reacted favourably to superglue. Needless to say the production kit will be a different kettle of fish. Panel lines are crisp and tidy, and easily on a par with anything from other mainstream manufacturers. The test shot featured a number of lines that were engraved erroneously – so disregard any anomalies you may see in this department. The moulds have been polished too, so the surface of the kit parts is smooth, and easy to work on.

Construction starts with filling the fuselage up with undercarriage bays and cockpit tubs. The former feature nice moulded detail, while the latter will be provided with decals for the instrument panels and side consoles. As little enough is visible through the aircraft's canopy, and time was short, I simply painted the cockpit interior grey and fell to wassailing instead.

Once the various inserts were applied I joined the fuselage halves, taking care to line up the cockpit apertures to ensure the best possible fit of



The three-part upper-fuselage assembly is a nice piece of engineering



A tight fit was achieved in this area with no problem



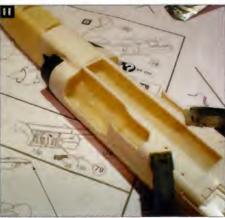
The tail and upper airbrakes

the transparencies. Everything slotted nicely into place, and in fact the only parts of the whole kit that were in any way controversial were the intakes and associated trunking, which I am informed are to be re-engineered prior to production.

Addition of the wing and upper fuselage sections was most satisfying. Nothing is more intolerable than trying to remove a fuselage seam on a white-painted aeroplane. On this kit you will have only the short section between the wing and the cockpit to worry about!

Cutting Edge

Things had moved quickly so far, and thanks to the layout and design of the parts I had a finished airframe in only two sessions at the workbench. My usual sanding and filling followed, and Halford's primer was thrown into the mix. It is impossible to say how much filler will be needed on the production kit, but I used neither more nor less than usual on this example, and found



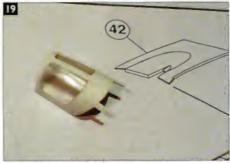
Intake trunking is provided – although Airfix advise that the final parts will differ from the test shot



Underside of assembled aircraft



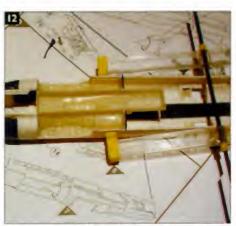
Port intake assembly



Main cockpit canopy painted and ready

that on the whole it went together with little fuss. One particularly nice area is the jetpipe assembly, which features good detail and fits beautifully.

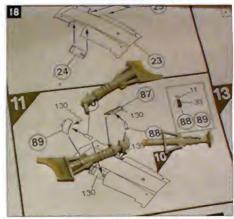
The instructions provided suggest that the kit will feature options for three aircraft – all white unsurprisingly. These will be XR219, XR220 and XR222. Comprehensive stencilling will be provided, and the instruction sheet shows some



A Berni-clamp is ideal to secure the curved sides of the bomb bay



A closer look at the lower-middle section fully assembled



Main gear legs undergoing painting

70 items requiring placement on a finished model. Having no decals, I opted to use parts from an Airfix Vulcan sheet, which were the only anti-flash options I had in my spares box. The roundels for the upper wings seemed about right, but having none of the correct size for the fuselage I have applied an outsize example to one side only, in order to give a better idea of what the model will look like when decaled.

The aircraft was finished with numerous coats of Halford's Appliance White, apart from the undercarriage, which I sprayed Humbrol matt white with my Aztec. With hindsight I would have been better airbrushing the whole thing, as the Halford's coats had to be sprayed outside, and repeated snowstorms interrupted the procedure with monotonous regularity.

In Conclusion

There has been a lot of speculation over this kit. It has, of course, suffered some delay, and this has been due to the manufacturer's determination to

A Quick History of the TSR.2

he TSR,2 (Tactical Strike/Reconnaissance) started life in 1954 when the Air Staff began looking for a replacement for the Canberra (TSR.1). When in 1957 the Conservative government cancelled the Avro 730 strategic bomber, a new specification was issued, GO 339, which was itself finalised a year later as OR343. The Government would not place a contract with a single manufacturer, only with a group of firms working together as they intended an amalgamation of the aircraft industry into BAC.

In 1958 the Air Ministry, along with the Ministry of Aviation, pressed Vickers Armstrong and English Electric into a composite design, with the announcement on 1 January 1959 that they would build the aircraft. The formation of BAC took place in February 1960, however because of the upheaval, it was not until October that year that the division of work between Vickers Armstrong and English Electric for the TSR.2 was settled.

Along with the massive work effort, a Government bureaucracy containing upwards of 60 committees evolved. In theory subcontractors would work through BAC, who would deal with the Ministry. In practice it was a disaster, subcontractors would deal with the Government, with no contact with BAC, who in turn could not change any aspect of the design without going through the administration. On top of this, the Ministry of Aviation wanted complete control over the project, as did the Treasury and the resulting infighting would sap at the TSR.2 until its termination in 1965.

In 1958 the Royal Navy refused to have any thing to do with TSR.2, opting for Blackburn's NA.39 (Buccaneer) as their new strike aircraft. The purchase of Polaris from the USA in 1963 and the unsuccessful attempt at selling the TSR.2 to the Australians further undermined the project, and the last blow was the newly elected Labour Government's decision at the start of 1965 to opt for around 150 of the much less capable American F-111A.

Despite of the appalling mismanagement, on the 30 September 1964 the TSR.2 made it's first flight, one year behind schedule. Problems had been encountered with the undercarriage and the engines, but these were soon resolved, and the aircraft first went supersonic on its fourteenth flight. By the end of the initial testing, including low level runs, the TSR.2 had surpassed all expectations. But on 6 April 1965, with three aircraft built and 17 on the assembly line, the axe came (as it did for the HS.681 and P.1154). Work and testing was stopped. BAC were instructed to destroy all aircraft, jigs and documents etc. and thus the end came for the TSR.2 - by far the world's most advanced and capable military aircraft of its time and for decades to come.

Tim Large









TSR.2 In Detail

nflown TSR.2 prototype XR222 has been refurbished by volunteers from the Duxford Aviation Society and was formally rolled-out on 16 December 2005 in a ceremony attended by former BAC personnel, surviving TSR.2 test pilot Jimmy Dell, and the restoration team. These photographs were taken by SAMI's Managing Editor.



















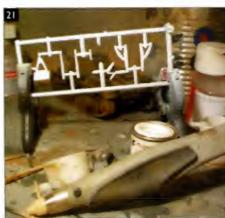








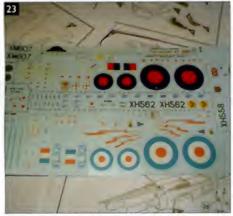
Halfords acrylics were used for the main airframe



Humbrol Matt White was airbrushed onto the smaller undercarriage components



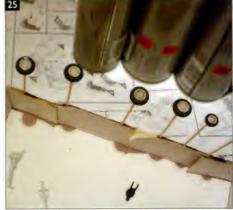
Decalling under way. The instructions promise a mass of stencilling and wing walk details



I used elements from an Airfix Vulcan sheet to give an impression of the production kit's potential



Low-viz roundel applied to starboard fuselage side for effect



Finishing off the wheels with a wash of black oil paint

get it right. I would be inclined to say, on the strength of this test shot, that this is precisely what is going to happen. My own inclination is to judge a kit first and foremost by the amount of scratchbuilding I have to waste time doing. Here there are no major sins of omission, and the modeller has a complete aircraft ready to build with no holes to fill, and a more than adequate canvas for superdetailing should one be so inclined.

This promises to be an excellent kit. Forget the ghosts of Airfix past – the ancient Bf 110, the Zero, and the button wheels we took for granted 40 years ago – this, the white ghost of Airfix present, along with the others announced at Telford in November, suggests that the ghost of Airfix to come is going to be very welcome when it comes rattling on the door later on this year.







n the exciting world of record breaking there's a basic fact to bear in mind — given a field where a simple achievement can be recognised then something is going to be first. After that everything comes second.

The Supermarine Attacker was the Fleet Air Arm's first jet-powered fighter. There, that's it. There's not much more to be said. It was a gasturbine powered version of the Seafang, which in itself was essentially a late-mark Seafire with a laminar-flow wing. Less than 200 were built and although it came from the most emotive name in the British aviation industry and served for six years, it was never regarded with any great affection. Whereas the Swift was Supermarine's swan song the Attacker was just a clearing of the throat.

Nevertheless, I was keen to see this kit as I like turning out the sort of model that might have supposedly well-read aviation enthusiasts scratching their heads before they figure out what it is, and also one of the few Jetex-powered models I built decades ago that actually flew well was based on this aircraft. (Ah, nostalgia! I have one of those Keil Kraft Attacker kits half-built at the moment, destined for a Rapier solid rocket power. Ed.) Finally, from an aesthetic point of view the Attacker, like most early jets, has a true purity of line and would make a welcome addition to my collection.

In common with most modellers I like to do a bit of background research on a project to at least get a feel for the subject. I was stunned by how little I could find on the aircraft and will therefore treat this article as a building exercise rather than try to create an appraisal of its accuracy.

Open the box!

Classic Airframes have a distinctive style to their packaging which can be immediately recognised on shop shelves. Lifting off the 'proper' top to the lightweight card box revealed three injection-moulded sprues with a single transparency packed separately in a heat sealed 'annex' to the main bag to prevent scratching — a neat idea that other manufacturers might copy. There are 39 injected parts in what appears to be (but isn't — more on this later) very brittle grey plastic, featuring crisp engraved detail, while the injected canopy is thin and clear with very faint frame line detail. Nineteen cast parts are supplied in a grey resin and feature a very high standard of detailing, while a sheet of etched metal makes a welcome return to Classic Airframes and provides 14 parts.

The painting and markings guide is in blackand-white (Classic Airframes used to have neat full colour painting guides; it's a shame to see them gone), but in real terms this isn't a problem with only two colours in the scheme. Three marking

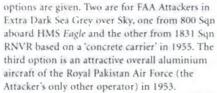




Layout of the kit's plastic parts



The kit's single canopy has barely visible frame lines



Certain features have to be accepted in limitedrun kits. These include thick parts with clumsy sprue gates, and in the case of my kit a degree of flash and some severe mould wear. Several locator holes had filled in (I presume there are some kits out there with curious little metal pegs embedded in the plastic) and some time had to be spent drilling them out using the 'scars' as guides.

Construction started as usual with the cockpit interior, which with the notable exception of the instrument panel is very neatly cast from resin. Three parts make up the simple ejection seat, which is finished off with straps from the etched metal sheet. I believe that these early seats allowed for a backpack parachute and a dinghy pack in the seat pan, neither of which formed part of the seat proper, hence the vacant recesses in the kit seat. I followed the kit's colouring instruction for this with the exception of the firing handle, which I finished with black-and-yellow stripes rather than overall yellow.

The substantial cockpit bath is cast in one lump with a comparatively small pouring block which I removed with an Olfa P-Cutter. Before painting this part I offered it up to the kit's injection moulded plastic fuselage, anticipating a prolonged and messy



The resin parts include a turbine face, though it's not visible on the finished model without a flashlight



A number of finely cast resin parts are supplied

period of scraping and filing before anything even crudely fitted together. I was stunned when the cockpit dropped perfectly into place without any fuss at all. With my experience of several Classic Airframes kits I was caught completely unawares and had to do a double-check on the box top to be sure I had the right manufacturer!

The only sub-standard part within the cockpit is the instrument panel. Classic have provided this as an injection-moulded component and it's far from being the best plastic part in the kit. The instruments are featureless, with crude raised bezels that in some areas are incomplete. A resin casting from a decent master would have been better, but best of all would have been an etched metal part with a printed or photo film backing, and it's annoying to realise that both these media are provided elsewhere in the kit.

I elected to file the plastic part flat and replace all the dial bezels with items from my depleting stock of ReHeat generic brassware. These were fixed in place with Future floor polish and then filled in after the panel was painted with white discs punched from a decal sheet and dials from ReHeat. I think it looks a lot more convincing. The retractable GGS Mk4 gunsight is well crafted from resin, just take care when fitting it as it can drop down behind the instrument panel and possibly get trapped inside the cockpit.

Mould damage on the kit extended to the slots in the fuselage sides for the wing spar (Part 5) which had filled in completely. It took some energetic chiselling to get these open, for the mould had broken down completely in this very small area—it wasn't just a case of a bit of heavy flash. Once in place though the wing brace did its stuff really well, the completed wings marrying up to the fuselage with no gaps at all on the top surface where they'd be hardest to fill. The more demanding modeller will want to fill the inside of the wing join where it forms part of the main wheel well.

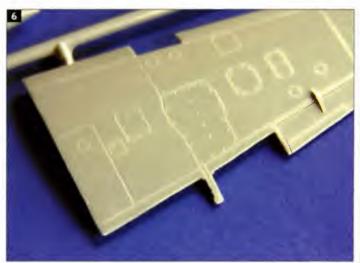
As I don't know the real aircraft that well I was a bit unsure about the ventral whatchama'callit (Part 35) for it didn't fit at all well. I had to file out the hole in the fuselage underside to clear it and then the part didn't fit flush with the underside, being slightly recessed. It seemed quite happy in this location so I left it alone from this point, sure that in the fullness of time I'd find out what it was. I also had some problems with the locating tabs and slots for the tailplanes and had to cut and file these to get the parts to fit around the resin tailpipe casting.

From this point on the kit virtually fell together without any great fuss. Considering the grief and hassle CA kits have given me in the past 1 was genuinely stunned. There are very few location pins and most of them had filled in due to mould damage. Care therefore had to be taken to make sure the parts were correctly aligned, particularly the fuselage halves unless you want to risk losing the incredibly delicate surface engraving.

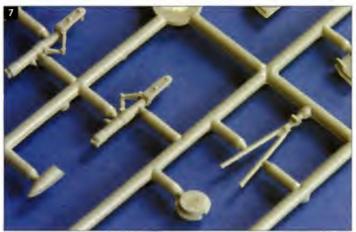
At this point I have to mention the plastic, As it appears on the sprue the parts are extremely glossy and this makes it look like hard and brittle



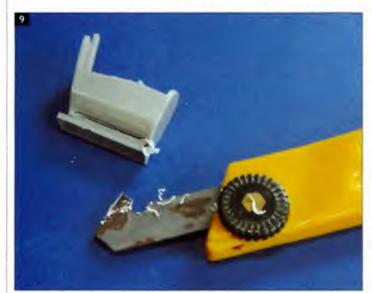
The decals really are as good as they look



Surface detail is particularly impressive and clear — no need for pre-shading on this one!



There's good and bad on the sprues. The undercarriage is neatly done but the arrestor hook is a 'short-shot', while the instrument panel is rather clumsy



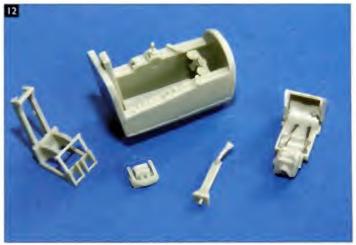
David used an Olfa P-Cutter to remove the resin pouring blocks with minimal dust



The instrument panel was improved by filing it flat and decorating it with ReHeat instruments



Care has to be taken to remove the ejector pin scars wherever they might interfere with the fit



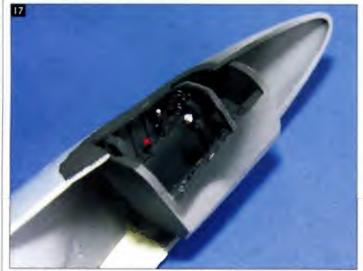
Resin parts for the cockpit interior cleaned up and sprayed with Halfords grey primer



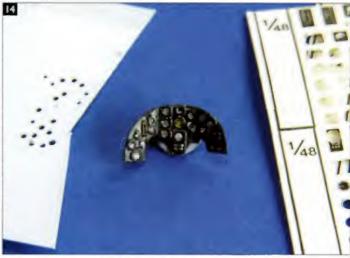
Nose parts cleaned up ready for use. You can't see the compressor face but the part still forms the wing spar and does an excellent job



The cockpit interior parts ready for use



Two views of the cockpit interior installed, "From this point on the model just fell together."



ReHeat instrument decals were used to complete the panel



Whenever practical, David brought together parts for bulk painting, here lining up the undercarriage legs along the sprue next to the arrestor hook for spraying with Alclad II lacquer.



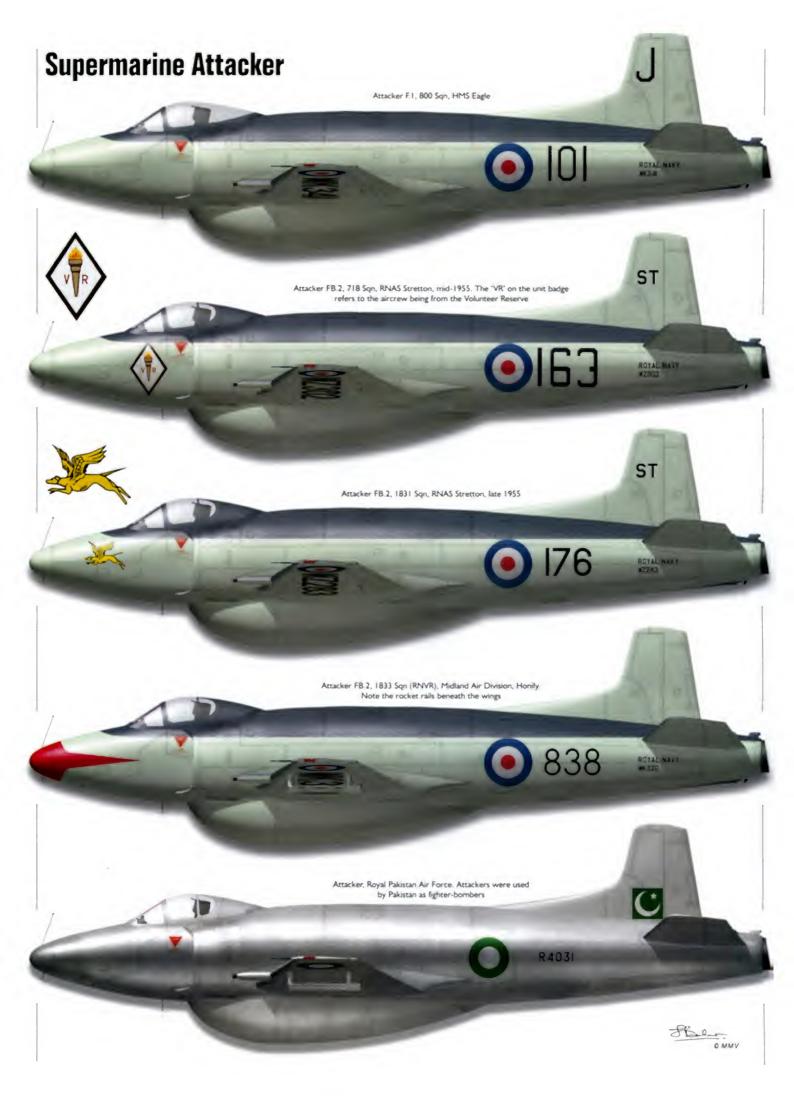
polystyrene. It isn't. Whoever made the mould did a terrific job of polishing it to a glasslike finish, for the plastic itself is very soft. It will scar and scratch all too easily, so take great care. On the plus side, although the parts are pretty thick, the trailing-edges taper down to almost razor sharpness — an excellent job.

Various resin parts are supplied for the main structure of the aircraft. These consist of the tailwheel and arrestor hook wells, tailpipe and rear fuselage, and the lower corners of the intakes. Most of these parts fit extremely well and can be blended in without any real effort, the exception being the intake corners that need just a bit of fettling to get the best fit and then a little filler afterwards.

I produced a couple of poor joins that needed 'proper' filler (in this case Milliput) and these were along the underside of the wing and the starboard side of the fin. You will have to work carefully around the blister fairing for the rudder trim tab — if the join had been on the port side of the fin there'd have been no problem. While I was at it a touch of filler was applied to gaps around the base of the windscreen and the belly tank, though these

are so slight they could have been dealt with by an application of typewriting correction fluid. After finishing the model I did catch one void I'd missed, at the base of the trailing-edge of the fin. Annoying, but that's the way it goes sometimes!

I have to say the cast resin cannon are not particularly great. They mismatch the wing profile in the worst possible way, being too shallow. If they were too deep they could be sanded down flush in a couple of minutes, but being too shallow they have to be built up with filler which then has to be sanded down, and this can get a bit erratic around









Attacker History

n June 1944 a team headed by Supermarine chief designer Joe Smith began work on a jet fighter aircraft to meet Air Ministry Specification E.10/44. It was to be powered by the in-development Rolls-Royce RB40 engine, whose promised 4,000 pounds of thrust was twice that of then current jet engines. The new aircraft was based on the laminar flow wing of the piston-engined Spiteful, last — and lacklustre — hurrah of the Spitfire line mated to a new fuselage with pressurised cockpit, and a new tail unit. Four 20 mm cannon would provide its armament.

After submitting preliminary designs for what was to become the Supermarine Type 392, in August 1944 the company received an order for three prototype "jet aircraft of the Spiteful type", powered by the R-R RB41 Nene turbojet. Two of the prototypes were to be navalised for possible carrier operation.

The first Type 392 prototype, TS409, was built at Supermarine's High Post factory in Hampshire, and transported by road to the Aircraft and Armament Experimental Establishment at Boscombe Down for flight testing. There it made its first flight in the hands of company Chief Test Pilot Jeffrey Quill on 27 July 1946, subsequently making its public debut at that year's Society of British Aircraft Companies' show at Radlett Aerodrome in the following September.

The second, semi-navalised, prototype, TS413, built to Specification E.1/45 and featuring a



Martin-Baker ejection seat, reduced fin area, larger tailplane, longer-stroke main undercarriage, balanced ailerons, modified flaps, additional fuel capacity and provisional for catapult spools and rocket-assisted take-off gear (RATOG), first flew on 17 June 1947 in the hands of Mike Lithgow. Designated Supermarine Type 398, and soon named Attacker, it began a series of carrier deck trials aboard HMS Illustrious in October 1947, in the hands of Lithgow, Commander Eric Winkle'

Brown, and Lieutenant S G Orr.

Lithgow, flying the first prototype, TS409, set a new 100-km Closed-Course World Airspeed Record on 27 February 1948, averaging 564.882 mph over Chilbolton Airfield. Four months later TS413 crashed fatally during handling trials, due to a suspected rudder 'hard over' in sideslipping tests. The first prototype was rapidly upgraded to Type 398 standard while the third aircraft, TS416, was completed.

At length, in September 1948, an order came for an initial production batch of 60 Attacker F Mk 1s for the Fleet Air Arm, the first of which, WA469, made its maiden flight on 4 May 1950 in the hands of Les Colquhoun. Nineteen days later, while he was conducting tests to assess high Mach number handling and airbrake effectiveness, Colquhoun had reached a speed of 430 knots when he deployed the airbrakes. The Attacker pitched rapidly up, then down, causing Colquboun to bang his head on the canopy framing and the starboard folding wing panel to fold up to the vertical, stowed, position, locking the ailerons. Using rudder only Colquhoun flew a wide circuit and managed to land back at South Marston airfield, the only damage to the aircraft being a blown tyre due to heavy braking — the Attacker stopped within the last 30 feet on runway! For his remarkable airmanship Les Colquhoun was awarded the George Medal.

The Attacker F.1 entered service with 800 Sqn at RNAS Ford, Sussex on 22 August 1951 as the Fleet Air Arm's first operational carrier jet, and first went to sea aboard HMS s in the following March. Nos













803 Sqn and the short-lived 890 Sqn re-equipped with Attackers in November 1951 and April 1952 respectively, each having eight aircraft on strength, plus spares.

Meanwhile, the first Attacker FB.1 fighterbomber, WA529, made its maiden flight on 7 January 1952, and was followed by the developed FB.2, with uprated RR Nene 7/102 engine, metalframed cockpit canopy, provision for carriage of up to six rocket projectiles in two tiers under each wing, and other modifications. The first FB.2, WK319, first flew on 25 April 1952; production of this variant totalled 85.

The Attacker's front-line service was short-lived, ending with the disbandment of 803 Squadron in November 1955, but the aircraft served on with a number of second-line squadrons and Royal Navy Volunteer Reserve (RNVR) units, most being withdrawn and scrapped at RNAS Abbotsinch.

Glasgow by mid-1958.

Only one other air arm operated Attackers. Following a sales tour of the Middle East in 1950 the Royal Pakistan Air Force ordered 36 Attackers, bringing total production of this pioneering jet to just 149 aircraft.

MJ

In detail

The sole surviving Supermarine Attacker in the Fleet Air Arm Museum at RNAS Yeovilton (Photos: Gary Hatcher)







the base of the cannon fairings.

I did have several qualms about cutting open the canopy, not least because the part is unique (there's no spare) and the framing is so faint. However, once I had masked out the framing I took a deep breath and started off with a couple of passes with an Olfa P-Cutter and then finished the job with a fine razor saw.

CA have provided the flaps as separate parts and I took the opportunity to model these as if for a take-off — partially extended and drooped.

The undercarriage parts were cut from the sprue, cleaned up and then glued back onto the sprue such that they could be sprayed en masse. Minor additions at this point were some brake hoses from thin wire and a few holes drilled through the torque links. Alclad II lacquer was used for the legs, wheels, retraction jacks and tailhook, which were finished in a natural aluminium shade according to



Postal Cover celebrating the first flight of the prototype Attacker on 17 July 1946



the instructions. I varied a bit from the instructions in finishing the wheel wells and door interiors in the underside Sky colour, for I was more comfortable with this appearance. I believe that the 'bare metal' would have been covered with clear grease so that any corrosion could be seen as soon as it started and promptly dealt with, but this could well be the modelling equivalent of yet another 'urban legend'.

obviously flat. I added just a single pitot (correct, according to my references) to the port wingtip from fine brass tubing with a fine wire tip, which looked better. Etched metal was also used for the fuel dump pipe on the aft port fuselage side, formed around a piece of fine rod to get an aerofoil section before gluing it in place. Just like the forward radio altimeter aerial this got knocked off several times during the later stages of

Installing the undercarriage also caused a couple of problems as the holes in the bays just weren't large enough for the pins on the tops of the legs and some time had to be spent chiselling them open. The fact that the nose aerials had already been fitted by the time this was done (after final painting and decaling) made for a nerve-wracking job and with hindsight I wish I'd done a trial run before the wings were even assembled. Hindsight also corrected me on the flaps — I should have left them off until after the model was painted as they just got knocked off several times and, to add insult to injury, they suffered dreadfully from an overspray of Sky when the wing undersides were painted.

While dealing with the tailhook I noticed that it had suffered from a 'short shot' and both the arms were incomplete. These were replaced with plastic rod after the hook had been glued into its recess. I elected to paint these with black-and-white bands, once again contradicting the kit instructions.

After a preliminary coat of primer which showed up a couple of very minor join faults and just how good the engraved detail actually looked, the final details were added. These were the two intakes on the fuselage top and the multitude of etched metal aerials above and below the nose.

A second coat of primer prepared the model for painting, which was done in reverse order to avoid touching those annoying little aerials. First off was the upper camouflage of Extra Dark Sea Grey, which had to be carefully masked off for the rather awkward demarcation line. It took a while to get the upwards curve in front of the windscreen







Attacker: Another Take

John Bisset builds CMR's 1/72 scale Attacker F.I/FB.2

his is the first all-resin kit I've made, and it makes up into a fine little model. The resin is crisply moulded, with a fine, smooth, matt finish. It is easy to work, and less brittle than I'd expected. A six-piece cockpit makes up a detailed interior, although the traditional early British military jet 'black-on-black' interior colouring makes it hard to see much once complete. I used very dark grey dry-brush highlighting to bring out some details. There is a particularly well-moulded Martin-Baker ejection seat, which I shall use as a guide when enhancing my earlier 'upgrade' of the old FROG/Novo Attacker.

Cementing resin using cyanoacrylate glue I thought would cause problems. In fact, with care, all went well. For fine work I decanted a tiny spot of glue onto a scalpel blade tip, which avoided the flood of excess which I'm otherwise apt to get with low viscosity CA. The use of a light spray of water as a moderate accelerator - a trick suggested by an online friend - helped

The level of fine surface detail achieved in this kit is excellent. I was unnecessarily as it turned out - quite concerned that the fine detail parts would be too fragile to remove easily from the casting surrounds. The intake mouldings however were so delicate that they broke apart while I was gently sanding them flush. This was one area of the kit I did feel needed improvement. While the tailpipe is well detailed, even including a depiction of the engine rear face,

the air intakes are blanked-off less than 4 mm from the lips, and this is very visible. With care it's possible to drill and file out the intakes from the inside. A couple of side plates glued into the fuselage provide an approximation of intake ducts, which greatly improve the appearance of the model.

Czech Master Resin 1/72 Scale

No.5106 Supermarine Attacker FB 1/FB.2

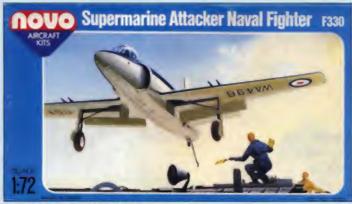
Two vacform canopies are provided for early and late Attacker variants. I chose the late version,

which unusually has less Perspex than the early blown-style canopy. There must be a story behind this, presumably reflecting either design or manufacturing limitations. It's details like this that make modelling fun for me, throwing up odd questions about engineering choices that I'd never notice otherwise. I'm not an expert on vacform canopies, though this one went reasonably well. The presence of a spare helped my confidence greatly when cutting.

An excellent decal sheet is provided, with sharply done stencils included, and markings for three Royal Navy machines plus one Pakistan Air Force example. Since I'd made a PAF version previously from the old FROG/Novo kit, the RNVR scheme appealed. I didn't add the finely detailed rockets and bombs, or the astonishingly bulbous belly tank, preferring a clean look. Fully laden, I suspect that the Attacker was not a sparkling performer.

Overall, a build that I enjoyed. Quite a lot of work from what had seemed a simple kit, but well worthwhile in the end.

Supermarine Attacker FB.I/FB.2 Scale: 1/72 Kit No: 5106 Price: £22.90 Panel Lines: Recessed Status: Reissue Type: Resin Parts: Resin 50, Vacform Clear 2 Decal Options: 4 Manufacturer: CMR UK Importer: Hannants 2 102 WK327 WK327 WZ283 WZ283 810810 14032 F4032 E E OOOOO







John's Royal Pakistan Air Force built from the FROG/Novo FROG kit







symmetrical, using Tamiya masking tape that had been trimmed to 2 mm width for increased flexibility. However, once the outline masking had been done the upper surfaces of the wings, tail and fuselage spine were masked off with low-tack masking tape.

A couple of coats of Sky were needed to get a solid finish over the EDSG but this extra time was rewarded by an impressive effect once all the masking was removed. A few minutes were spent touching up a bit of overspray, particularly around the cannon fairings and flaps, and then a coat of gloss varnish prepared the model for the decals.

These were fantastic. I don't know who produces them for CA but they are extremely flexible, although they baulked at the substantial cannon blisters on the underside of the wing even with my strongest decal softeners. With hindsight I'd recommend cutting away oval shapes to clear the blisters and then painting the blisters with gloss black to complete the codes. Nevertheless they have extremely 'solid' colours and very good register. As an extra point, the gold in 1831 Sqn's 'winged greyhound' marking is a proper

gold, not yellow as might be anticipated. A couple of evenings work with no problems at all saw the model properly decorated.

A final coat of gloss varnish (Poly Scale acrylics were used throughout) had the model ready for final assembly, which consisted of the undercarriage, 'bang seat' and sliding canopy section, and I was completely chuffed with the result.

Summing Up

Masterful. If I have any regular readers out there they will know I've never been an apologist for Classic Airframes' kits, so when I say the Supermarine Attacker is in all respects an excellent kit please take it for real. Maybe not for those modellers who feel uncomfortable stepping outside the range of kits produced by Tamiya and the like, but all others can approach this kit with confidence. Terrific stuff. Now I just can't wait for the Anson and Canberra!



Scale: 1/48 Kit No: 4102 Price: £32.99

Panel Lines: Recessed Status: New tooling

Type: Injection Moulded Plastic

Parts: Plastic 38, Resin 19, Clear 1, Etched 13

Decal Options: 3

Manufacturer: Classic Airframes





Junkers D.1

Aspects of a Remarkable Aeroplane

By Harry Woodman

ollowing the end of WW1 many representatives of the victorious powers visited Germany to gain first-hand knowledge of the latest developments in the German aviation industry. What they found was often surprising and certainly educational. Detailed reports were written in aviation and engineering journals. Unfortunately, that opinionated old windbag C G Grey, Editor of The Aeroplane, could not resist making one of his characteristic stupid remarks. Commenting on a photograph of a Junkers D.1 found abandoned at Evere, near Brussels in November 1918, he noted that the machine had the designation 'Junk. D.1' on its fuselage side. Grey opined that the machine was just that, 'junk'.

More receptive and intelligent observers were quick to appreciate the advanced construction of this aeroplane, which had arrived just too late to see operational service on the Western Front. What the investigators found was the end product of a long process of development by brilliant German scientist and engineer Professor Hugo Junkers and his talented team at Dessau.

The various Junkers aircraft which appeared late in the war were not the only truly advanced achievements in aviation design and technology which took place in Germany at that time. Another genius, Dr Claude Dornier, and his team, did work



The J. I after roll-out displays its radical design. Note the belly radiator which would become common decades later

on flying boats and smaller aircraft such as the superb Dornier D.1 which contributed enormously to the development of all-metal aircraft. The final 'giant' from the Zeppelin-Staaken works — the E.4/20 all-metal, four-engined, cantilever monoplane passenger aircraft — was a decadeand-a-half before its time. Designed by Dr Adolf Rohrbach, it was cynically scrapped on the orders of the Allied Control Commission because it was considered to be a potential bomber. It seems more likely that the existence of such an advanced machine compared with the wooden, wire-braced

and fabric-covered contraptions flown elsewhere might have been an unwanted competitor in the hoped-for future civil air transport market.

There had been previous examples of German technical and design superiority, of course. In early 1916 British crews in1914-designed B.E.2cs must have been surprised by the ultra-streamlined LFG Roland C.2, the first of a series of well-designed and armed two-seaters such as the later Albatros, Halberstadt and Hannover products which appeared in 1917 when British crews were still flying the B.E.2c and derivatives, and French



The J.1 just before roll-out at Doberitz. This original Junkers print is dated 12 December 1915. The front cockpit was intended for an in-flight test observer



One of the J.2s (E.252/16) photographed at Adlershof in September 1916. Junkers' colleague Dr Ing Hans Steudel is in the cockpit. The J.2s, despite their revolutionary design were too heavy, which affected their performance. However Idflieg was interested enough to support Junkers in his belief in the future of all-metal aircraft

pushers were still to be seen over the Fronts.

There is always a degree of reactionary thought in all military organisations, and during WWI this was made painfully apparent. The German army, for all its organisation and efficiency, was not immune from this failing, but fortunately there were some elements such as those in the office of the Inspector-General of the Air Force (Inspecteur der Flieger or Idflieg).

By 1914, Hugo Junkers had advanced to the stage where an all-metal aeroplane was a viable proposition, but at that time there was little enthusiasm from the War Ministry, who were still anticipating an early end to the conflict. However, by July 1915 many things and opinions had changed and novel ideas were given more sympathetic hearings. In this atmosphere the War Ministry decided to provide funds to cover the building of Junkers' first flying prototype, an all-metal monoplane which became the J.1.

One has only to look at photographs of this revolutionary machine to realise what a giant step it was. It completed its first proper test flight on 18 January 1916, and realising the potential of an allmetal aeroplane, *Idflieg* decided to support further work and provided finance for the building of six



Photographed in the mid-1930s in the junkers museum at Dessau, this sole surviving J.2 airframe was lost during WWII



This photo, dated September 1917, shows the first J.9 in its original form with the pivoting wingtip allerons that were not a success. Note the provisional radiator position on top of the engine cowling

all-metal prototypes of what would become the Junkers J.2. But despite a good turn of speed the J.2 was basically too heavy, for these early monoplanes were made from ferro-magnetic steel some 0.1 to 0.2 mm thick, so Junkers turned to another material, Duralumin, which required a great deal of research before it could be used in airframe construction. For example, it could not be welded, so that a system of riveting had to be developed. Most famously the material was pressed into corrugated form, a feature of construction which would characterise Junkers aircraft for the next 20 years. Examples are still flying today in the form of the immortal Ju 52/3m, better known as Tante Ju to thousands of German troops during WWII.

Junkers wanted to build monoplanes despite the then current popularity of biplanes, and briefly triplanes, all of which he considered to be outdated, but *Idflieg* had other concerns. At that stage in the conflict trench warfare and ways of breaking the ghastly deadlock were being

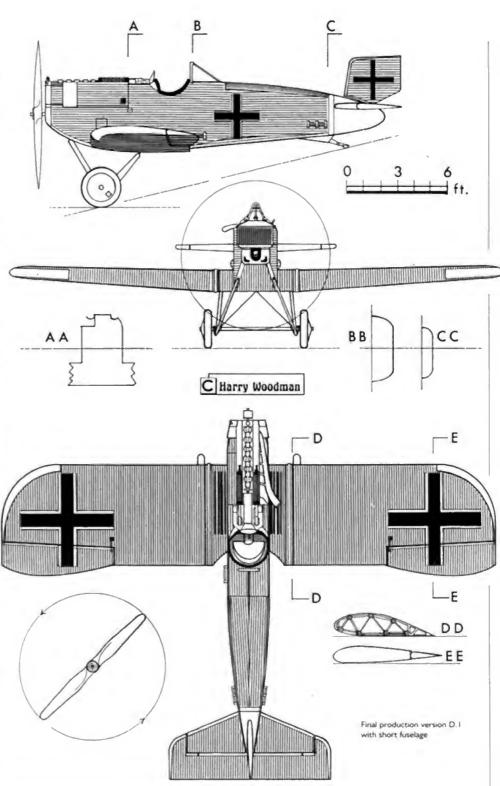
considered. What the German army wanted was some form of aeroplane that could assist the men in the trenches and damage the enemy. Despite his reservations Junkers produced the J.1 (military designation), a massive, partially armour-plated cantilever biplane capable of taking a great deal of punishment from ground or air. The Allies had nothing like it; as late as 1918 British pilots were expected to attack German ground formations in unarmoured Sopwith Camels.

In December 1916 Idflieg placed an order for three prototype monoplanes. Junkers' response was a single-seat fighter and a larger two-seater. The prototype fighter was designated J.7 and was a low-wing design with its thick wing situated below the centre of gravity. This caused some concern among the traditionally minded, many of whom thought that the machine would tip over, but wind-tunnel tests had shown that this wing position actually increased lift. The extremely clean-looking first version of the J.7 was constructed completely of Duralumin and featured revolutionary rotating ailerons which would prove not to be successful. The first tests were carried out by Feldwebel Arved Schmidt, who performed some high-speed ground runs that revealed a degree of tail-heaviness. On the following day some short hops and flat turns were accomplished, but the rotating ailerons were problematic.

Despite a radiator provisionally mounted above the engine a good speed of 124 kph was recorded, and the J.7 showed great promise once new wings with conventional ailerons had replaced the originals. On 22 October 1917 naval pilots Leutnants Gotthard Sachesenburg and Theo Osterkamp flew the J.7 and were able to outclimb an Albatros D.III and outpace it in level flight. After further improvements Idflieg decided to enter the J.7 in the First Fighter Competition held between 2 January and 12 February 1918, Various experienced pilots tested the J.7 with generally quite favourable results, and it was formally accepted by the Fliegertruppe in March 1918 and used as a demonstration and training machine.

The Junkers company designation J.8 was allocated to a two-seat project which was virtually an enlarged version of the J.9 (the subsequent final development of the J.7). The improved version of the J.8 became the J.10, of which a small number were completed before the end of the war in the West under the military designation Junkers Cl.I. Junkers steadily improved the D.7 and the revised models were designated J.9.

The eventual D.1 production prototype and two models were ready for testing in April 1918.

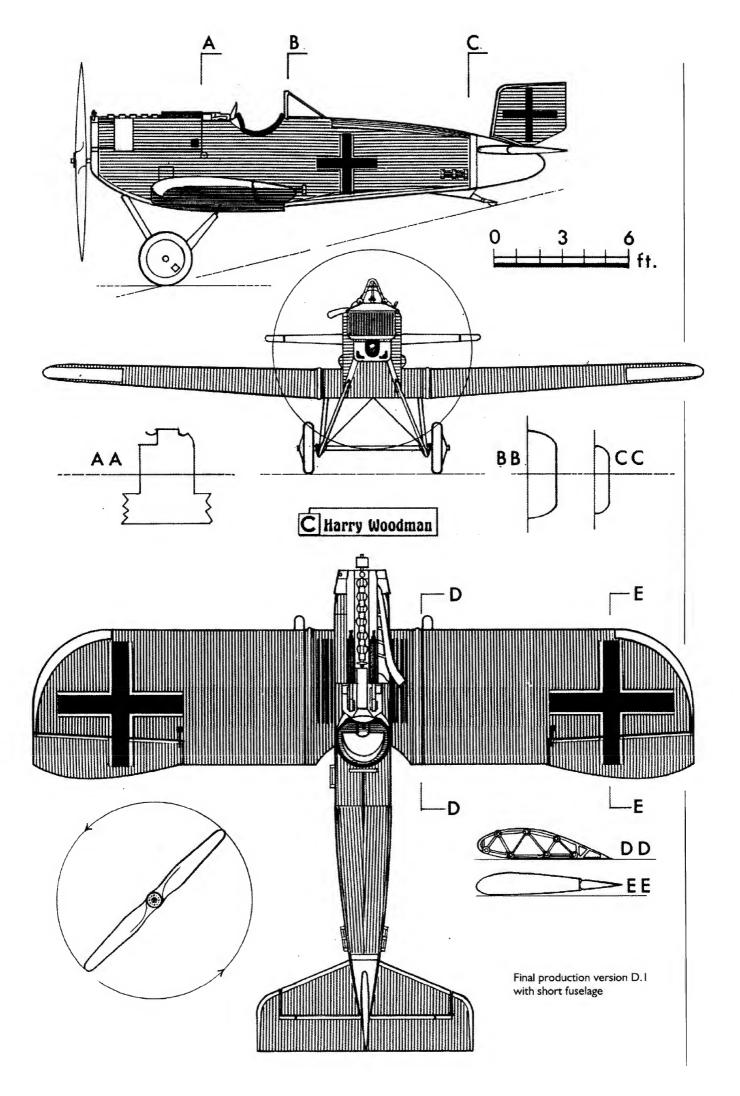


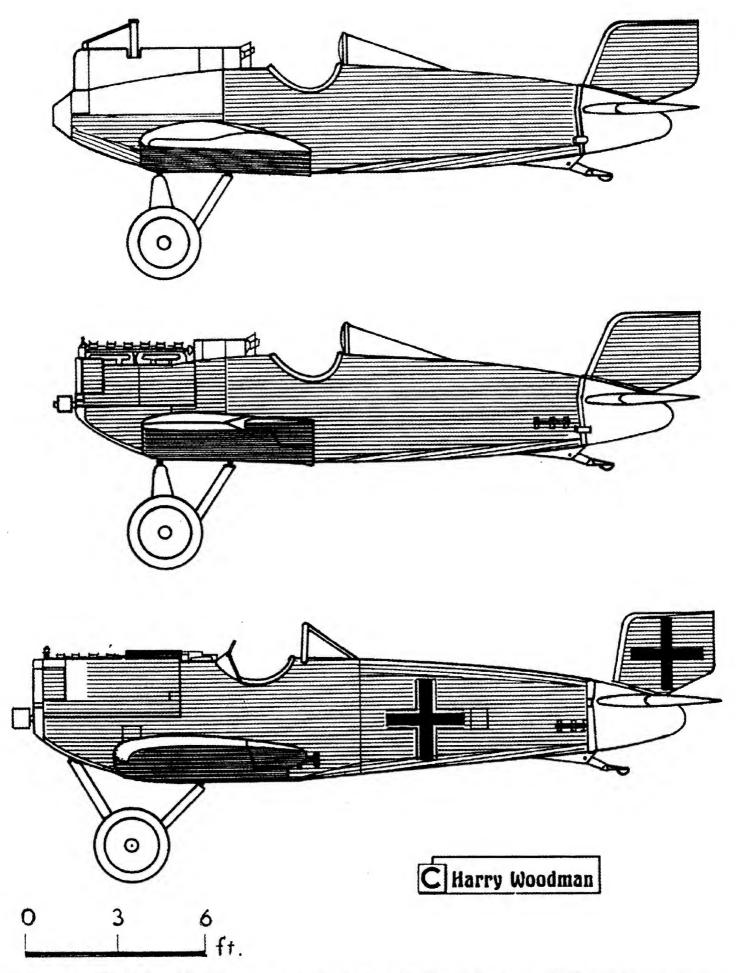


The J.7 in its final form with nose radiator. This photo was probably taken at the Second Fighter Competition in May 1918. Note how the iron cross has been overpainted with a rather thick Balkenkreuz (bar cross) in accordance with the order of 20 March 1918.

Junkers had concentrated on perfecting the airframe for mass-production, for there were many problems with placing an advanced all-metal aircraft on a production line. New tools and facilities had to be supplied and a workforce used to wooden airframes had to be trained, but despite this Junkers received an open contract for 100 all-metal aircraft, of which the first 20 were to be single-seat D.1s

Junkers was not afraid of competition such as the Fokker D.VIII and the Siemens Schuckert D.IV. He considered that all-metal aircraft were the aircraft of the future. In the second Fighter Competition held in May 1918 the J.9 surpassed all the other Mercedes-powered aircraft except for the Rumpler D.1. The other J.9 present at the event, fitted with the new 195 hp Benz Bz.IIIbo V-8, was prevented from showing its paces because of problems with the engine. In the final days of the competition various pilots were invited to test the

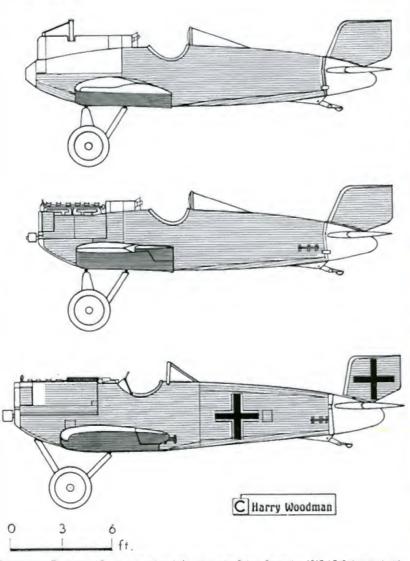




From the top: The Junkers J.7 as it appeared just before its maiden flight in September 1917; J.7 (3rd version) with balanced ailerons — the final version had unbalanced ailerons; The D.1 production version with long fuselage



A study of a long fuselage D.1 reveals construction details. This is the model fitted with a new Benz Bz.IIIbo V-8 engine which proved to be problematic at the Second Fighter Competition, preventing the D.1 from taking part



From the top: The Junkers J.7 as it appeared just before its maiden flight in September 1917; J.7 (3rd version) with balanced ailerons — the final version had unbalanced ailerons; The D.1 production version with long fuselage



Sole surviving Junkers D.I., preserved in the Musée de l'Air et de l'Espace at Paris-Le Bourget (Mike Jerram)



A D.1 production prototype photographed at Adlershof during the Second Fighter Competition in June 1918. The inverted "V" strut between axle and fuselage was not seen on production models

fighters, and their opinions were respected even though their views were frequently conservative.

Oberleutnants Goering and Loerzer supported the development of the lunkers D.1 but suggested that it was only suitable for attacking balloons. They also considered that the D.1 was "a total failure" - so much for prescience! In fact, the only major drawback so far as many pilots were concerned was the poor downward view due to the thick low wing. Nonetheless, Idflieg placed another order for 100 metal aircraft of which 10 were to be D.1s, but time was running out. In the third and final Fighter Competition held in October 1918 Junkers entered a D.1 with a longer fuselage and powered by the BMW.IIIa engine. It seems that its performance was disappointing and some D.1s were rebuilt with the shorter fuselage and shorter wingspan. A few D.1s were ready for despatch to the Western Front and were loaded on flat cars to be discovered by the Allies in a railway siding at Hombeek in Belgium in January 1919.

During WWI a total of 40 Junkers D.1s had been ordered, of which 27 had been completed up to February 1919 when production was stopped. The first D.1 was delivered in June 1918 - too late for the main conflict. However, the D.1 did see operational service in the East where a confused



A long fuselage D.1, serial D.1.5180/18 from the production batch 5180-5189 ordered in May 1918. The colour scheme was probably patches of mauve and dark green on upper and side surfaces with very pale blue undersurfaces.

political and military situation saw a German Freikorps army confronting the Bolsheviks in the Baltic States. The D.1 and its larger two-seat sister the J.10 (military Cl.I) flew many support missions, the unit becoming known as the Kampfgeschwader Sachsenburg.

Post-war developments within Junkers led to a

period in Soviet Russia where the qualities of the corrugated metal construction were greatly appreciated and indeed adopted by Soviet designers. Junkers became a byword for ruggedness and reliability in many parts of the world during the 1920s and early '30s, and Junkers aircraft participated in several wars in South America and Spain, and into WWII.

Today a solitary refurbished D.1 can be seen in the Musée de l'Air et de l'Espace at Paris-Le Bourget Airport, along with another Junkers immortal, the classic F.13, which was the world's first multi-seat all-metal transport aircraft, created by Hugo Junkers' long-term colleague Otto Reuter.

To be convinced of the genius of Junkers and his team one only has to compare the revolutionary monoplanes built at Dessau between 1915 and 1919 with contemporary designs elsewhere. There



being turned over at the old Zeppelin base at Wainoden in Kurland in March 1919. This is one of the machines of the Kampfgeschwader Sachsenberg which supported the Marinefreikorps involved in combating the advancing Red Army

Harry Woodman

Acknowledgements and Further Reading

- The most recently published work on this arcraft is the excellent Windsock Datafile No 33 by Peter M Grosz, published in 1992 but unfortunately now out of print and unlikely to be republished.
- Another line source is the feature The Way to the World's First All-Metal Fighter, by Peter M Grosz and G Terry which appeared in Air Enthusiast No 25 in August 1984.
- I fine study with excellent illustrations covering the life of Hugo Junkers and his aircraft by Gunter Schmitt was published by Motor Buch Verlag, Berlin, in 1988 (English language version ISBN 3-344-00303-8).



Friday the 13th

Unlucky for some, but not Jacques Niot, who builds Fonderie Miniature's 1/48 scale Handley Page Halifax B.III. And who better? He made the patterns for it!



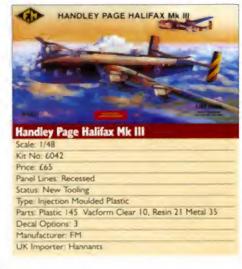
hen rumours started to circulate at the end of 2003 that a new kit of a four-engined British bomber was to be released in quarter-inch scale, it generated enormous excitement among the modelling fraternity. As the rumour became more and more insistent, bits of information began to creep out: it was to be a Halifax, and more unexpectedly, from a relatively small manufacturer, the French company Fonderic Miniature. Excitement peaked when a completed model appeared, resplendent in all its glory in Free French markings, on FM's stand at the 2005 Paris Model Show.

Having been lucky enough to be involved in the project, I thought it would be a good idea to give SAMI readers a few hints on the tricky build sequences often experienced with limited production/short-run kits, so I decided to build a second model. This time I would use production

parts — those you will find in your kit — as the model I built for exhibition in Paris had been assembled from test parts and in a hurry due to the approaching show deadline. This one would sport one of the two RAF markings options supplied in the kit, that of the famous LV907 Friday the 13th which completed 128 operations with 158 Sqn and is commemorated by the superb hybrid Halifax/Hastings reconstruction which is exhibited at the Yorkshire Air Museum at Elvington.

In the kit's huge box you will find 145 white plastic parts on 11 sprues; 10 vacform clear, all duplicated; two bags containing 21 resin components; one comprising 35 white metal parts; a small photoetched fret, and a large decal sheet with three smaller correction sheets. These provide markings for the two aircraft mentioned above and a third, NZ426/EY-G Munga Taipo of 78 Sqn.

The overall quality of the moulding is quite good,

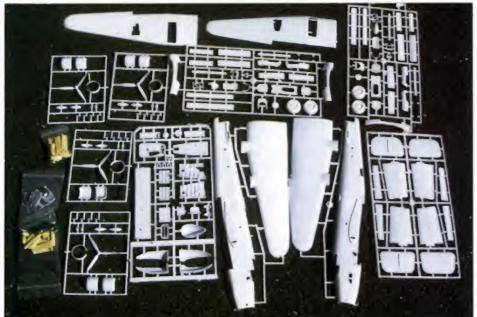


with engraved panel lines combined with some raised detail, particularly on the wings. Surface of the white plastic is smooth, no longer grainy as it still was until recently, and the resin parts are devoid of air bubbles or pinholes. Very well cast also are the metal parts, with just a tad of flash here and there. Four double-sided bilingual A4 instruction pages include profiles for decal placement.

Fuselage

All limited production models have in common the need to prepare parts before assembly, mainly by sanding flat all edges and removing flash, and this kit is no exception. In addition, test fitting of parts is a good idea prior to cementing them permanently. Once this had been done on the fuselage halves, all portholes and side windows were cemented in place from the inside. Unlike the main transparencies, these are of injected plastic and will benefit from some polishing or application of Johnson's Klear or both.

In order to make sure that the fuselage halves would join accurately, I temporarily fixed in place the cockpit floors and bulkhead and trimmed to fit where necessary. Once satisfied with the fit by



Comprehensive kit parts include injection moulded resin, white metal and vacform components



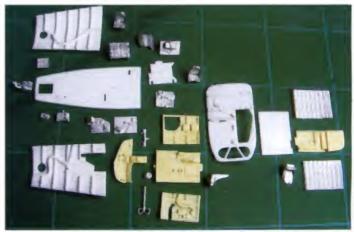
The two sets of transparencies



Decals for three aircraft



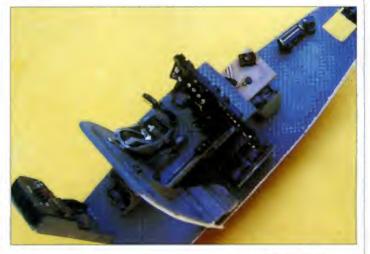
Cockpit floor and bulkhead temporarily offered up to fuselage half for trial fitting



Highly detailed cockpit is made up of injected, resin and white metal components



Cockpit painted and assembled





The forward fuselage lining panels need sanding to "the utmost thinness" to conform to fuselage curvature and allow the cockpit unit to fit snugly

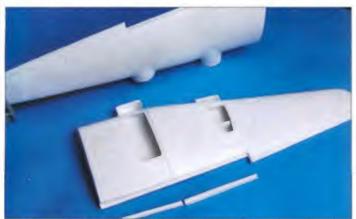




Bomb bay, bomb bay doors and tailwheel/bay components



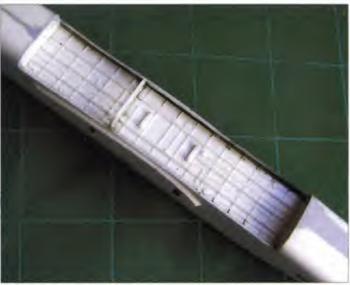
Sturdy undercarriage is made up of injected and white metal components. Softness of the white metal main legs enables them to be spread for inserting the wheels at a late stage in final assembly



Wing halves joined ready to receive the handed flap shroud 'gutters'



Arrows indicate where filler was needed around the engine nacelles and a chordwise spacer was added to the port wingroot

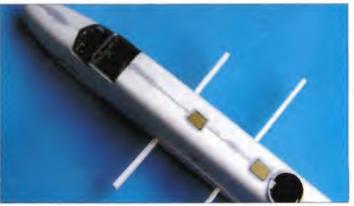


Bomb bay assembled and installed





Engine nacelle installation in progress. Jacques had to trim the walls of the inner nacelle cutouts for best fit — note hatched area marked out on port wing panel at upper left



Forward wing soar was too long and needed 2 cm to be removed from each side

offering up the second half, I removed this assembly and put it aside while preparing and painting the cockpit components. Parts 14 and 16 (the front fuselage linings) needed sanding as thin as possible so as to conform to the fuselage curvature. I also found that the instrument panel needed to be pushed forward by about 1.5mm so as to coincide with the slot in the port sidewall. After painting the panel satin black with all recesses receiving small drops of white, instrument dials individually cut from a ReHeat decal sheet kindly supplied by Aeroclub were glued in place. Photo-etched throttle and propeller pitch controls, compass bracket, pilot's seat harness, rudder bar and control column brake grip were painted and progressively attached to the main parts of the flight deck. Once everything looked good, the assembly was cemented permanently into one fuselage half, along with the resin tailwheel bay.

Now both fuselage halves were glued together. The joint was generally good, but on some of the accompanying photos you may notice a grey area on the front underside of the fuselage ahead of the bomb bay where filler was needed because of slight warping of the right front half on my sample. With more care this probably could have been avoided simply by straightening up the area with my thumbs.

It was now possible to attach the three remaining square windows from the inside (the two larger ones for the fuselage top being cemented via the bomb bay opening, the smaller under the nose). The bomb bay roof with its three bulkheads was now cemented into place. Note that it is slightly angled in its rear part to follow the fuselage cutout. Do not cement the bomb bay doors at this stage because they will cause problems when sanding the fuselage/wing join. Bulkhead 44 should be carefully cemented to the fuselage bottom so that the bay roof clears the spars holes in the wing fillet.

Undercarriage and wings

All components of the undercarriage bay were progressively assembled: first the four sides onto the bay roof, then the 'chair', part 37, which plays no real function in the overall sturdiness of the assembly, it just duplicates the real thing. On the front side of the bay (part 33a) the two U-shaped parts 33b were firmly glued as they would receive the transverse axle of the metal yoke once it has been fitted with its



plastic backing. Finally, the retraction arm linking the legs to the bay sidewalls spigots was added. The softness of the white metal parts enables you to slightly spread the undercarriage legs apart so that you can easily put the wheels in place without spoiling the paint job; they can be pressed back straight at a later stage.

After preparing the wing upper and lower surfaces by removing all flash, sanding rough spots, particularly along the leading-edges, and thinning down the trailing-edges from the inside, they were glued together. I lined up both trailing-edges and applied small amounts of cyano, thus preventing any risk of subsequent distortion. Next I cemented the leading-edges and flap housing 'gutters'.

Attention now turned to the engine nacelles. I cemented together the outer engine nacelles halves (note that due to the wing's leading-edge taper, these parts are handed) and mounted these assemblies to the wing undersurface, then joined the inner nacelles halves and inserted the undercarriage bays, pushing them down as far as they would go so that their

edges were level with the nacelle cutouts. To achieve this I found it was necessary to slightly trim the bay front and rear walls. On offering up the nacelles to wing I immediately noticed that the opening was too small and had to be enlarged. A very small amount of filler was called for around each unit.

Now I was reaching a decisive step. The complete fuselage was waiting for me somewhere on my workbench. I grabbed it again and slid the two wing spars into their respective holes in the root fillet, making sure that they were perfectly square with the fuselage. When the cement had set I offered up the wings to the fuselage. At that moment two anomalies appeared. The front spar was obviously too long and butted against the undercarriage bays, so I had to remove 2 cm from each side. There was also a fairly wide gap along the left underside joint whereas it was near perfect elsewhere. This could be fixed either with putty or better still with a doubletapered plasticard shim starting and ending at nearly nothing to reach 2 mm wide in the middle, which was cemented in place chordwise. Apologies from the pattern maker for these two anomalies.

Once satisfied with the fit, the whole assembly was placed on a perfectly flat surface and balsa blocks slid under each wingtip so that the correct dihedral was obtained. Cyano was lavishly poured along the join and the model left for at least 24 hours.

Tail unit and bomb bay

I prepared the various components for the tail unit by sanding all trailing-edges before cementing the parts together. Attaching the completed assembly to the fuselage was straightforward and required just a bit of filler in a few places.

The flap halves also needed thinning down at their trailing-edges before cementing together. To the inner flaps were added those parts of the engine nacelles that moved with them when the flaps were lowered; it was important to do that now because it wouldn't be possible with the flaps in place. I then mounted the flaps in their respective gutters at the desired attitude.

I cemented the various parts of the bomb bay doors with the narrower elements overlapping the wider and attached them to the fuselage in the open position. It could be possible to glue them closed, but in addition to probable fit problems it would be a shame to hide forever that nice interior detail! The photoetched bomb door hinges were also installed



now as per the instruction drawing, along with the scanner fairing. For a better fit, its edges benefited from slight trimming to follow the fuselage contours.

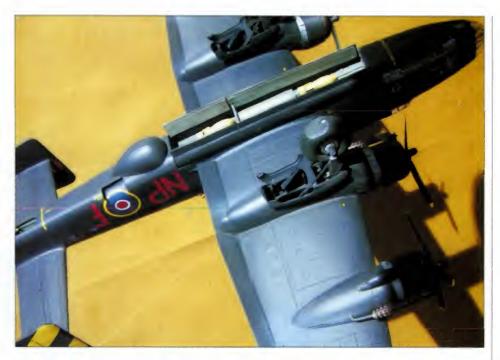
Engines and cowlings

Fonderie Miniature supply the Halifax's Bristol Hercules radial engines with separate cylinders and crankcases, and so you are left with the task of gluing those 56 tiny parts together. The job is complicated by the fact that the crankcase holes are not large enough and must be re-bored with a 2.5 mm drill bit to accept the pegs on the cylinders. After cementing together the cowling halves it appeared that the diameter of the front openings was not large enough - 19 mm instead of 20.5 mm. A piece of coarse sandpaper wrapped round a tool handle did the trick. The cowl flaps are supplied as separate open rings which need vigorous sanding of their insides especially on the rearmost edges. When fitting them on to the cowlings I needed to take into account the position of the upper airscoop gap and the locating holes for the flame dampers. Note that the position of these 'porcupine' or 'saxophone' dampers could differ according to engine variant.

Attaching the engine/cowling assemblies to nacelles required 6 mm thick spacers (not supplied) to be glued on the backs of the engines, taking care that the engines were perfectly centred when cemented to the nacelles. The cowlings with their various airscoops were added.

Transparencies

As previously noted, all the main transparencies are supplied as vacform parts, with spares. The pilot's canopy was installed first after fixing a thin plastic strip along its rearmost edge to support the adjacent flight engineer's transparency panel, with astrodome. Note that the astrodome recess in the panel should not be cut out - just cement the 'dome into the depression with PVA glue or Kristal Klear. I cemented thin styrene strips into the fuselage openings to provide a slight recess onto which to fix the transparent parts. Very small amounts of cyano were then applied and allowed to flow along the joints via capillary action, avoiding any risk of fogging. These parts were then protected with thin strips of masking tape and Humbrol Maskol before filler was applied sparingly to the joints. When dry, careful sanding resulted in near invisible joints.



Surprisingly, masking tape survives the erosion of sanding fairly well as long as the paper is used dry.

Dorsal and rear turrets were fitted with their respective gun mountings. The gun barrels are supplied as separate parts so as to make fitting easier if the turrets are installed before painting. For ease of placement it may be useful to slightly deepen the holes into which they fit, but there is no reason why the turrets can't be installed after painting has been completed.

Final details

The wheels were painted as follows: four 15 mm diameter discs were cut in Tamiya masking tape with an Olfa cutting compass, their centres hollowed out so as to obtain rings which were firmly applied to the hubs which had been pre-painted in Alclad aluminium. Once the masking ring was in place and the centres filled with Maskol the tyres were airbrushed.

The D/F loop fairing is supplied in two halves, one of which needed some restorative work on my sample. I sandwiched a length of wire between them to act as both a locating peg and a tiny antenna mast.

For the landing lights I cut out two discs from adhesive chrome tape and stuck them in the undersurface recess of the port wing before installing the supplied clear cover and masking it off.

The propellers are nicely done but many blades showed a few sink marks, fortunately mostly on their back faces. Just one was very visible and needed to be filled in and sanded.

If like me you wish to pose the crew access door open, remember, it opens upwards and inwards — and be prepared to make cuts in the fuselage roundel decal which in all cases overlaps it.

Painting

After masking all transparencies and the already completed areas such as the bomb and tailwheel bays and engine cowling openings, the entire model was sprayed with grey Tamiya surface primer. I do like this product, which I consider mandatory for a good paint job. When dry — just a matter of a few hours — the entire surface was slightly buffed with a Micromesh 3200 polishing pad, another wonderful brand I recently discovered and which instantly makes every grainy paint surface smooth.

And then, out with the airbrush! As I didn't want to use the yellow fin stripe decals (even though they are perfectly usable) I first airbrushed this colour on the fin outer surfaces and when dry masked them off. Same for the front cowling collector rings, these airbrushed with a mix of gold, red and black in a more or less successful attempt to duplicate that clusive stained bronze colour of the real thing. Period photos show that the engines' cowl flaps on many Halifaxes, and on this particular aircraft, were left unpainted in natural metal (maybe replacement parts?), so here I airbrushed Alclad aluminium.

That done, the big paint job could start. I prepared a huge a mount of satin coal black Humbrol 85 mixed with some matt white and suitably diluted — actually enough to paint a full-scale aircraft, I think!). When dry, the two upper colours were applied using Tamiya flat earth XF52 and dark green XF61. Masking patterns cut from car repair tape were used throughout, the green portions being subsequently touched up on their edges using the airbrush's 0.2mm nozzle so as to obtain slightly soft demarcation lines.

Next day, all the masking was removed and gosh! You get a big shock, something like the day you undressed your first girlfriend... (Steady on, Jacques! Ed.)





Main assembly placed on flat surface and wingtips supported for 24 hours for wing fuselage joints to set





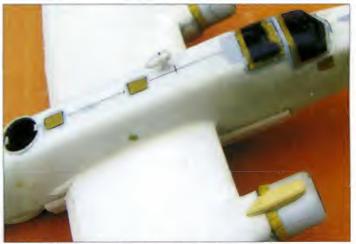
Inner flap sections (right) must have a portion of the engine nacelles attached if they are to be displayed in the lowered position



Bomb bay doors installed



Engine, cowling and propeller components. Jacques has already opened out the faces of the cowling on the right to their diameter



Vacformed transparencies, protected with tape and Maskol, were fixed on internal ledges with thin cyano



Jacques' favourite Tamiya grey surface primer was followed by Humbrol satin coal black for the undersides





My first build from a test shot of the Fonderie Miniature Halifax in Free French markings

Decalling

One preliminary word about the decals. It may appear that some misunderstanding arose between manufacturer and printer as the kit contains four decals sheets with some images duplicated. In fact, Fonderie Miniature was not happy with some of the colours on the main sheet, particularly the French blue and the British red, and asked for correction. Some service stencilling also is oversize, but be assured that everything is there correctly printed once you have picked up the right image from the right sheet!

That said, all images are very well printed with perfect register. They have good colour opacity, in particular the white of the national insignia doesn't turn grey on the black undersides, and there was no silvering even on semi-matt surfaces.

After airbrushing two thin layers of a mix of Testor's dull and gloss cotes (in proportion of about 70:30 respectively) to obtain a satin finish, all remaining masking was removed and the framing on all clear parts hand-painted.

Now was time to sit back and treat myself to a large portion of that Scottish beverage and admire the result!

Conclusion

I'd like to answer the question you're probably asking yourself. Is this model difficult to build? To be honest I don't think that strict beginners would obtain a perfect result, but this kind of product is not aimed at them. We all know that 'short run' manufacturers don't have the technical means to compete with the mainstream industry, hence the absence of locating pins, the presence of some flash here and there, some fit problems, some parts needing to be scratchbuilt...

But for sure this model is within the capabilities of a modeller with a modicum of experience. It has no hidden vices and I hope this article will help the reader to overcome the few difficult points there are.

Is the model worth buying? The answer is definitively yes! And at a bargain retail price well under £70, provided you have enough room left on your shelves, don't hesitate - give that Tamiya Lancaster a brother!

And now how about a Short Stirling?

Many thanks to FM for their wonderful model, and to SAMI for giving me the opportunity to express my opinion of it.

Jaques Niot



Bibliography

- Warpaint No 46
- Squadron/Signal In Action II No 66 Scale Aircraft Modelling Vol 10, No 8 (May 1988), Vol 18, No 9 (Nov 1996) and Vol 18, No 12 (Feb 1997)
- Aero Journal Hors Sene No 1 (Nov 2000) Les Groupes
- Monteur de l'Avation No 22 (July 1979)

- Ancraft Illustrated Vol 4, No 9 (September 1971)
 Aeromodeller Plan Pack NST 2882 (multi-view scale drawings
- Perodata International No 7
- Website www.tarrant-rushton.ndirect.co.uk for outstanding period photos of Halifax innards





New Lamps for Old

Tom Hall polishes up Revell's elderly 1/32 F4U Corsain

first built Revell's 1/32 scale Corsair about 20 years ago, possibly earlier, since the clock ticks faster as you grow older. At the time resin accessories were virtually unheard of and the range of tools I possessed was strictly limited, but I was quite pleased with the result and that particular model still resides within the house, whereas many other later and more sophisticated creations have been stored in loft or garage. For the historians among you, Photo I shows the old original.

I have always had a preference for 1/32 scale (all right, storage is a problem, hence the use of loft and garage) as its offers more detailing possibilities for my unskilled hands. Consequently, over the years I have built up a collection of the Revell 1/32 range to add to the loft insulation, and this included a second Corsair kit which has been helping to keep the house warm for a couple of decades. Now, the F4U Corsair is one of those aircraft that looks good from any angle and it is always a popular subject with modellers so recently I decided to dig out the old warbird and see what I could to with it two decades down the line.

The only additional accessories which I used all those years ago were Waldron cockpit placard and instrument sets. I first came across the Waldron sets in Verlinden's publication On Plastic Wings, but at that time there were no UK suppliers and I had to purchase the set by mail-order from the USA—very adventurous back then! I have liked the natural metal finish and detail which they provide

ever since, particularly in 1/32 scale — it's those unskilled fingers again! The metal foil which Waldron use is, to me, friendlier than most other metal accessories. It cuts nicely with my wife's nail scissors and seems to bend more easily into shape. The sharply printed finish on the placards is certainly a better and more realistic effect than I

can achieve by painting. The bottom line is that I decided to utilise the Waldron sets again in my 'retro build'.

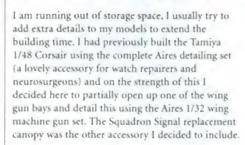
Now, 20 years on, I should be more proficient than I was all those years ago, and the current fashion in modelling seems to dictate that a bit more detail be included in a finished model. Also, as











The Kit

Now let's be fair, these kits show their age when compared with modern production runs. Photo 2 shows my old kit, but I believe Revell now produce it in their familiar blue, end-opening box. When you open it up you are struck by the relatively few











pieces there are compared to today's offerings and the large size of the mouldings. In total there are 61 grey plastic parts and four clear plastic pieces, 10 of the components being used to allow the wings to fold — another sign of the kit's age. Panel lines are raised and there is the odd bit of shrinkage, notably on the propeller blades and wings. Eight parts go to make up the engine - which with a bit of effort could be made into something special - and the two-piece pilot is the usual hands-on-knees dummy. Rivet detail (love it or hate it) doesn't look too bad on this particular aircraft but the fabriccovered sections of the wings could be slightly over-emphasised. The plastic is user-friendly and quite thick, in fact the trailing-edges of the wings would pass for leading-edges on some other aircraft! Building instructions are in the usual







Revell exploded-drawing format. Decals are included for two aircraft, one US Navy and one Fleet Air Arm.

Construction

Raised panel lines or recessed? You pay your money and you take your choice. My own preference is for recessed, but sanding the whole aircraft down would have removed a lot of the surface detail that I wanted to keep. Compromise. I sanded away the raised panels on most of the fuselage and from the outer wing panels and rescribed them using Dymo tape as a guide. I hate scribing panel lines (I always shp) but using Dymo tape — a tip that I picked up from an article in this magazine — does seem to help. The large size of the parts in this scale also allows you to get a good









grip and the operation is not as fiddly as in smaller scale models. Photos **3**, **4** and **5** show this process (the fuselage lines have been picked out in black ink to emphasise). While the fuselage halves were to hand I also added some basic internal detail using strip and Microweld (Photo **6**).

With this stage out of the way I turned to the interior. The kit's cockpit is awful. The seat looks like it came from the execution room on Alcatraz and the rudder pedals could be used for snowboarding (Photo 7). Surgery was clearly necessary. I used the kit parts as templates to cut out replacement instrument panels and seatback bulkhead from plasticard, cut away most of the cockpit floor to remove those terrible rudder pedals and scratchbuilt a new seat. Photos 8 and 9 show these stages of building and the addition of new rudder pedals and seat framework. The detail on the cockpit side panels has also been sanded away.

Once the new cockpit components had been put together (minus the instrument panel) they were primed with good old Halfords grey and painted Interior Green ready for the addition of the Waldron placards.

Photos 10 and 11 show the Waldron sets as supplied, and give some idea of the sharpness of the printed images. It was then a matter of building up the individual Waldron parts (for which detailed instructions are included) and adding these to the airframe/cockpit. Photo 12 shows the port sidewall and Photos 13 and 14 a close up of the cockpit side panels. The numerous switches on the Corsair would be apparent in this scale so I drilled through the appropriate points and inserted



fuse wire from underneath to replicate these.

The instrument panel is made up of a sandwich and Photo 15 shows the basic components for the initial construction; the individual instruments were then punched out and inserted into the appropriate holes in the panel. Waldron sensibly advise putting a pinhole at the back of the panel for each instrument to allow excess glue to escape. You can then detail the cockpit as much as you like or are able. Photos 16, 17, 18 and 19 show my

attempts at the initial build up. The headrest was made from a small 'cake' of Milliput and cut out with a tube of the appropriate diameter.

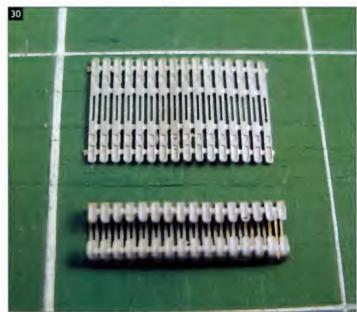
The completed cockpit assembly was then sandwiched between the fuselage halves in the usual way, and as I had retained most of the original cockpit flooring provided in the kit there were no problems with fit. (Resin cockpits, which you have beautifully constructed and painted, invariably seem to get damaged when you try to











squeeze them into kit fuselages!) The tailwheel assembly had to be fitted at this stage, and again the support struts are moulded on the heavy side. I replaced one of these with punched card and added a little more detail as per references. To show the rudder slightly offset I cut this away before joining the fuselage halves together and also cut away the exhaust stacks moulded underneath the fuselage to allow these to be replaced with more realistic tubing at a later stage.

The wings come in seven components, the inner and outer panels of that distinctive gull-wing each divided into the usual upper and lower sections. The lower inboard wing sections are incorporated in the bottom of the fuselage — Photo 20, which also shows the wheel bays and the limited detail which is moulded into the upper wing. These need to be boxed in for better realism and I used the wing ribs from the folding mechanism as templates to assist with this task. Revell provide brackets and aerofoil wing sections to allow the wings to fold and consequently, for those wishing to display the model with wings folded, it is relatively easy to build the kit up in this way. With good references the then visible open wing sections can be nicely detailed.

Since I had decided to open up part of the gun bay I drilled and cut away the relevant section of the starboard wing. I had already decided to finish the model in late Fleet Air Arm colours and for once I thought ahead. Placing a decal over an open gun bay on the upper port wing was a task I was happy to avoid. (Been there, done that!)

Now, I know it's an affliction which I need to address, but I decided to complete the model with the flaps down. So, it was now necessary to cut away the relevant sections from each wing, although this was not too arduous a task as the Revell plastic is relatively user-friendly. The wing sections where then joined together and the process of boxing in the gun bay (Photos 21 and 22) and the wheel bays (Photo 23) was carried out.

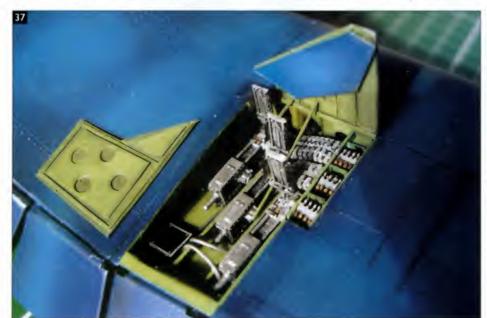
I mentioned earlier that the wing trailing-edges are far too thick and these need to be scraped and sanded-down to a more realistic profile - easier in my case since I had already cut away the flap sections. As I was building an FAA version it was also necessary to reduce each wingtip by a scale eight inches (an easy calculation in 1/32 scale) to represent the clipped wings these aircraft had for below-deck storage on the smaller British carriers. Photo 24 shows this operation. And yes, I forgot to allow for the thickness of the plastic which I used to blank off the wingtip! The wings were then mated to the fuselage without too much difficulty, although this amount of surgery does tend to impair the kit maker's engineering. Photo 25 shows a gap on the port wingroot which required filling.

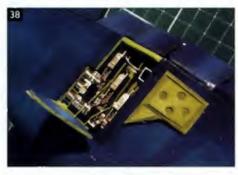
The three-part flaps for each wing were then

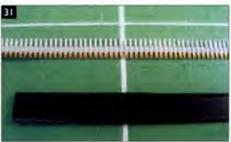
built up using plasticard and Microweld. The leading-edge of each flap was made from plastic rod and any remaining small gaps filled and sanded. Although I thought I had measured the flap length carefully, when I carried out a dummy fit they just did not look deep enough. So, it was back to the workbench to build a second set. Photos 26 and 27 show the nearly finished flap sections.

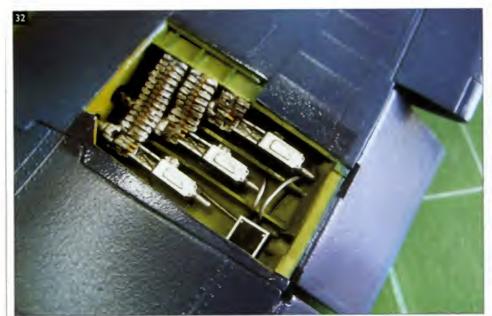
As I had replaced the cockpit instrument panel I had to build up a new coaming at the front of the cockpit (Photo 28) and add the additional instrumentation and gunsight. (Photo 29). At this stage I also added the tailplane, having previously cut away the elevators and showing these in a slightly drooped position.

The gun bay. To be frank, when I opted for this detail, I did not have a clear plan of action in mind. The Aires Browning .50 cal, wing-mounted machine gun set is a good starting point, being of their usual high standard and with the option of showing the breeches open or closed. However, ammunition feeds are a prominent part of this section and difficult to replicate. Years ago I built a 1/32 F-86 Sabre and used the Eduard etched set which includes ammunition feeds (Photo 30). These seemed suitable for the purpose and the spares box also had some left-over ammunition belts from the Airwaves set (Photo 31). Cutting and bending the finished feeds into place —















particularly on the very short run — was not easy (those unskilled hands again) and Photo **32** shows the initial fitting. Some additional piping and detail has been added and utilising another Waldron placard from the spares box.

The engine was built up as per kit instructions with the exception of replacement pushrods (Photo 33). There is scope for more detailing if you wish to display the engine and cut away part of the cowling. The propeller blades have some shrinkage, as mentioned earlier, and which need filling (Photo 34).

The undercarriage components were cleaned up and assembled with the addition of brake pipes and wiring. As supplied the wheels look a bit basic so I drilled these out and inserted some metal pieces (am I alone in having a lot of left over etched parts in the spares box?) to approximate what I assume is part of the braking system. (Photo 35). Another left-over etching was used for the inside hubs.

I always dither at this stage, uncertain when is the right time to paint/decal/detail, since I seem prone to finger prints/paint smudges/knocking bits off. I knew there was no way I could mask off the gun bay in its finished state so I opted to spray the aircraft overall Humbrol midnight gloss blue with my usual technique of highlighting by adding white paint to the mixture on the last spray. When dry, a coat of varnish, some initial decals and it started to look like an FAA Corsair (Photo 36).

The decals I used were the Techmod set for the F4U-1A/Corsair II as they included the late-war British Pacific Fleet roundels that I wanted to use. The Corsair, for my money, looks good in any finish, and one day I hope to build another with the well-weathered, bleached look of the US Marine Corps aircraft in the Pacific. For now, I was stuck to find the right size numerals. Is research a frustrating exercise for other modellers? My references frequently seem to contradict each other or totally ignore the particular detail I am trying to



track down. Among other references I used the FAA database website for what I hoped was basic factual data. Anyway, the Techmod roundels went on nicely although they were on the thin side and would probably not take to being slid around too much, so I took care to position them as accurately as possible at the first attempt. Codes and numbers I added at a later stage after trawling through my hoard of decals trying to find something of suitable size and accuracy. The fuselage numbers are, I think, slightly smaller than they should be but it was the nearest I could get from my collection.

While varnish/decals were drying I made up the necessary replacement panels for the gun bay from thin plasticard, gluing on a second layer of punched strip to try and simulate the internal surface.

Now, at this stage, you always think you have the model almost completed but, somehow, the final detailing and finishing off seems to take as long as the initial construction. The timescale is inevitably extended if, like me, you repeatedly knock off details you have already carefully glued into place.

The model was given another coat of gloss and then matt varnish in order to take the final weathering of pastels and dry-brushing. Usually I use raw umber oil paint and grey or brown pastels to highlight panel lines and 'dirty up' my models, but these are not so suitable on dark paint finishes. After a couple of failed experiments I resorted to scrubbing a lightened blue paint into some of the panels with a stiff, dry brush before sealing the finish off with a coat of satin varnish.

The undercarriage units were then installed. There are two locating holes inside the upper wing and I had difficulty in getting one leg to line up properly. Inevitably, I sheared this leg off and had to resort to some first aid in the form of splints, hopefully hidden, inside the wheelwell.

Before fitting the engine cowling I fixed a ring of electric wire (painted a dirty tan) to the front bulkhead to simulate the exhaust pipes which seem to be evident underneath the cowl flaps on most photographs. The kit has moulded control rods to the elevator trim tabs but these stand quite proud on most references so I cut them away and replaced them with card and wire.

The kit canopy isn't too bad even though it is moulded on the thick side. However, as I had purchased the Squadron/Signal replacement canopy and making sure I had a brand new blade in my modelling knife, I carefully cut this out and trimmed off the excess. I am one of those wimps who approach cutting, painting and gluing canopies with some trepidation and this was another occasion when discrete use of my wife's nail scissors proved helpful. (With all this cutting of metal foil and plastic, how well do they trim your wife's nails, Tom? Ed.) I spread the painting of the canopy over





three days, doing the internal green and external blue in stages in an attempt to avoid blemishes.

No construction project would be complete without a lost part and it was at this stage I found - or rather couldn't find - the wing navigation lights. With nothing suitable in the spares box I had to resort to small blocks of clear sprue glued into place and then filed and sanded to shape. To complete the gun bay I added small sections of Airwayes ammunition belts into the feed trays and attached the breech covers in the open position. Linkages to the open hatches were from wire (Photos 37 and 38). I had previously cut away the exhaust stacks which are moulded underneath the nose of the aircraft and I used three pieces of plastic tubing on each side, cut to shape, to replace these. The pitot head and undercarriage doors completed the project.

And there you have it. At £15 you get an old but still very workable 1/32 Corsair which, with a little bit of tidying up, still builds up into a nice model straight from the box. Alternatively, it provides a reasonable base on which to hang additional detail and produce something a little different if that is your particular bent.

So it's good 'old' Revell!

Tom Hall

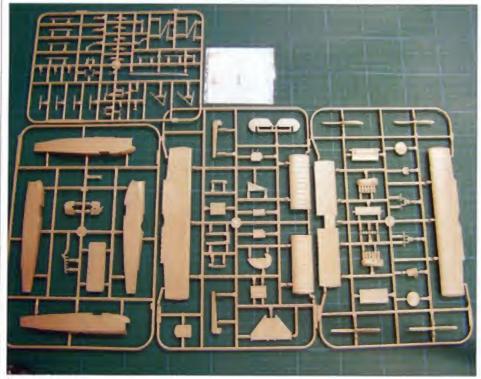






Fabulous Fokker

Simon Uglow builds Eduard's 1/48 scale Fokker D.VII (OAW) kit and declares it "something special"

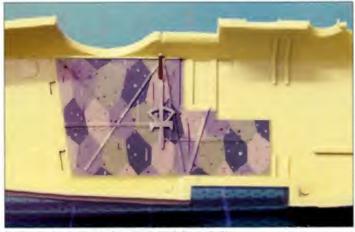


Sprue layout



duard have fully established themselves as a leader in World War I aircraft kits and each of their new releases is eagerly anticipated. Their Fokker D.VII (OAW) is no exception. Before the postman delivered my example I had seen several semi-completed builds at my local WWI modelling group. The general feeling was that this kit is something special, so I really couldn't wait to get my hands on it and get cracking.

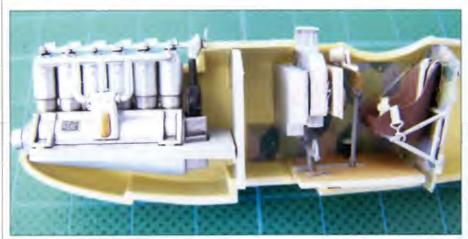
Eduard have taken a new direction in presentation here, replacing the familiar box-top painting with computer-generated artwork. Their signature 'black box' has also gone, in favour of a modern orange and silver surround. Inside the box Eduard's standard tan styrene sprues are coupled with a 'Zoom' style photoetched fret which carries pre-painted seat harnesses as well as other interior and exterior details. Six decal sheets are included. Two cover the four-colour lozenge for both upper and lower surfaces with a further small sheet for the interior lozenge panels. Rib tapes take up a further two sheets, whilst the last sheet covers the individual aircraft markings for four options: the aircraft of



Port fuselage interior showing lozenge panel and photoetched lever



Engine block ready for installation. A heavy Tamiya Smoke wash has been applied



Cockpit interior and engine installed in starboard fuselage half



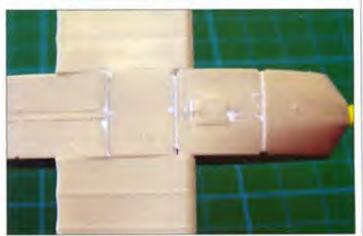


All glued up and bedded down to dry overnight





Cockpit and engine masked ready for mauve underlay to the 'giraffe' camouflage



Fuselage bottom with the ventral panel that lies directly over the join line



'Giraffe' camouflage just requiring the dark green overlay to complete



All masking removed and lozenge decals applied. Note no rib tapes have been added at this time

Hasso von Wedel, Rudolf Stark of Jasta 35b, Franz Büchner of Jasta 13, and an anonymous example from Jasta 58. Previous Eduard kits have been supplied with pre-cut vinyl masks, but here these have been replaced with new Kabuki tape masks. Last, but by no means least, we have the instruction manual — no more loose A5 leaflet, but a full-colour, near-A4, beautifully illustrated production. Steps are not numbered (and when do we modellers follow the order anyway?) but are logical, with the alternate pieces and decal application clearly flagged. Computer-generated images provide three-dimensional representations of key areas.

First impressions were very good, suggesting that a fine model should result straight from the box. A few discrepancies have crept in and there are a few areas that could be adjusted to further aid the build process. The biggest error relates to the colour and markings of Franz Buchner's aircraft. The greenand-white striped tail should in fact be the same blue as the fuselage. I elected to build Hasso von Wedel's D.VII, complete with gruesome Richtrad (medieval execution wheel) personal markings. Eduard state that Von Wedel was stationed with Jastas 23 and 24 but it should only be 24. The box art and instruction manual contradict themselves with respect to wheel and axle cover colours.

Building this aircraft and its complicated lozenge and 'giraffe' camouflage requires it to be treated as several major subassemblies, so let's get started! Having relegated unnecessary parts to the spares box and cleaned up all the major components both wings were assembled. Each is moulded as upper and lower halves, which were glued, clamped and left to dry thoroughly. A small quantity of Tamiya liquid primer was used around the edges and a light sand to finish. The lower wing was set aside, while the upper was

primed and given a coat of Johnson's

Future (Klear) in readiness for the decals.

and lastly, crosses and stencils.

Here lies one of the few problems with this kit—
the lozenge panels just aren't wide enough spanwise
to cover the wing surface without slight gaps
appearing. Had I realised this from the outset I
would have divided each panel at a rib station and
gained an extra millimetre's width here and there.
Gaps could then have been planned and

These are applied in three layers: lozenge, rib tapes



Decaling complete and final assembly underway. Photo-etch enhanced machine guns have been added

subsequently hidden by the rib tapes. The decals themselves behaved perfectly, just requiring several time-consuming sessions to complete. Ailerons and elevators were dealt with at the same time on the sprue in readiness for a matt topcoat.

Wheels, struts, propeller and other ancillary items were cleaned up and painted with a mixture of Humbrol enamels, Gunze Sangyo acrylics and oil paint. The Kabuki wheel masks performed

> faultlessly, displaying no tendency to lift during painting or leave adhesive residue when removed. The mauve wheel centres were sprayed

freehand, making no attempt to achieve a perfect circle. Machine guns are supplied fully moulded, though photoetched jackets and detail pieces are provided. If you choose this option, surgery on the plastic guns is needed, as the muzzle and stock are required. I went the photoetch route and felt the effort was warranted.

As this work progressed so did assembly of the cockpit interior and engine. Fuselage sidewalls were primed and then overpainted in Humbrol 74 linen. A localised application of Future was followed by the interior lozenge panels and Mr Mark Softer to bed them down over the raised sidewall detail. The bulk of the interior comprises plastic parts with just heel plates, instrument console, the odd instrument dial and lever and seatbelts coming from the optional etched fret. The starboard fuselage side had

all of the interior components added and then the fuselage halves were joined. Each of the interior components needed reducing in width to allow the fuselage to close, but by adding one component at a time and sanding to a good fit before proceeding this was readily achieved. The locating pins were removed as they introduced a slight misalignment. The basic airframe was then completed by the addition of the tailplane, lower wing and cowlfront/radiator. Small quantities of filler were required at these joints. Here a moulded panel on the fuselage underside, just in front of the lower wing, is susceptible to damage. A photo-etch alternative would have been nice, but none is provided. It is at this time in a Great War build that I wish canopies had been invented! Masking the cockpit aperture with fragile photo-etch pieces just millimetres below is always daunting. I elected to build up a Blu-Tack mask from multiple small pieces and sealed the whole with Maskol. The exposed

Hasso von Wedel

Hasso von Wedel was born in Vogelsang on 12 May 1893 and took a similar route to Manfred von Richthofen into the German Air Force. Training initially as an observer having transferred from the 11th Dragoon Regiment, he scored his first victory on 22. September 1916. Returning to Posen for pilot training he joined jasta 14 in February 1918 and from there to Jasta 75, with which he scored his second victory (a billion over Mansbach) on 16 May. Returning from injury sustained on 28 June 1918 von Wedel took command of Jasta 24 on 21 August and scored three more victones (an unidentified enemy aircraft and two S.E.Sas) in two weeks during September, ending the war with the Iron Cross (1st and 2nd Class).

Continuing flying into WWII von Wedel was shot down in his Messerischmitt Bf 109E-4 near Blisington on 15 September 1940, probably by Plot Officer R H Holland of 92 Squadron. His arcraft crashed into a farmhouse, killing the occupants and greatly upsetting von Wedel, who survived the incident. Repatriated to Germany, he re-entered the conflict and was killed helping to defend Berlin in the final stages of the war in 1945.

engine was masked similarly, though here Tamiya tape was also used.

With just the main airframe requiring completion before final assembly could commence enthusiasm was running high, but the 'giraffe' camouflage had to be painted. Following primer (Humbrol 1 again!) the radiator grill was sprayed satin coal black (Humbrol 85). Going back to the supplied masks and expecting to find one for the grille drew a blank, so small pieces of Tamiya tape were substituted and the mauve (Gunze H39) laid down. Tamiya tape was used to produce irregular lozenge shapes and these were placed so as to negatively mask the mauve





Fokker D.VII: Most feared opponent

Emerging victorious from the competition for single-engined fighting scouts (designated "D" types), held at Aldershof arried in January 1918, the production Folker D VII went into frontline senice in April that same year. The VII I prototype, from which the D VII was derived, featured a comma-shaped rudder and no vertical fin. This wiss added and the funelage lengthened on Anthony Folker's instruction to improve directional stability. Production of the D VII was undertaken not only by the Folker company but ironically by one of Folker's main competitions. Albatros, at both the Johannisthal and Schneidemuhl factories. The model depicted here is from the Schneidemuhl works.

Easy to fly, the D VII achieved considerable success in combat equipping Geschwaders. I. 2 and 3 as well as numerous individual Jastas. A capability to 'prophang' and shoot at opponents from below wills a special feature! Alongside the Gotha bombers the D.VII was specifically listed in the Amistice agreement as a type to be handed over to the Allies at the end of hostilities (In enter line alle apparate D.VII — Especially all machines of the D.VII type.) Despite this requirement many aircraft and engines made their way on rail cars into Holland where production of the type continued. These saw service until the late 1920s in the Dutch East Indies.

ready to receive the dark green overlay (Gunze H302). These stages contributed greatly to the authenticity and finish of the model, but I can't help but thinking that Eduard should have provided ready-cut masks for this area.

With the 'giraffe' camouflage out of the way the rest of the airframe was coated with Future and decaling once again took priority. The same application sequence was followed as for the upper wing: lozenge, rib tapes and individual markings and stencils. The wraparound fuselage band that carries the Richtrad markings is a precision fit, but the Richtrads themselves are poorly orientated compared to the side profile on the instructions. This is a shame as they are such a feature of von Wedel's aircraft. Also, being slightly translucent, the lozenge pattern is just discernible beneath the band. Plain Richtrad decals are provided, so painting the band would correct this area without too much extra

effort. Once complete, Humbrol Matt Cote was sprayed on all the major components. Matted-down the lozenge camouflage looked superb.

Final assembly was straightforward and greatly assisted by the precise engineering. All control surfaces were offset and locate positively at the hinge points. Such is the fit that pre-positioning was possible, then thinned PVA glue was applied with a brush. The fin and rudder assembly, along with the tailplane struts were next, followed by the interplane struts. The moulded dimples at their location points were identified beneath the decals and opened for gluing. With the interplane struts in place, everything was put aside for 24 hours to dry. The upper wing was subsequently mated to this assembly. Cabane struts were added last, having first supported the airframe in an inverted position. The undercarriage was assembled as a unit with the individual struts clicking solidly into the axle fairing. With everything still upside down the undercarriage was added. The small quantity of stretched sprue rigging was attached with cyano (Pacer's Zap-a-Gap). Last but not least were the handles for ground manoeuvring, the pilot's step and propeller.

Simon Malore

References

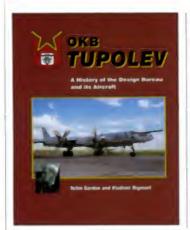
- German Aircraft of the First World War by Peter Gray and Owen Thetford, Plenam, 1962
- Owen Thetford, Putnam, 1962

 Above the Lines: The Aces of the German Air Service, Naval Air Service and Flanders Manne Corps 1914-1918, by Norman Franks, Frank W Baley and Russell Guest, Grub
- Street, 1994

 The Model Aerodrome (Web Forum)



Book of the Month



OKB Tupolev - A History of the Design Bureau and its Aircraft

by Yefim Gordon and Vladimir Rigmant

Price: £35 Publisher: Midland ISBN: 1-85780-214-4

Format: 220 mm x 298 mm, 368 pages

Cover: Hardback

What business has a devotee of naval subjects with a book of this complexity and calibre? I am broadening my horizons, you see. Having acquired a taste for passenger aircraft following exposure to a certain

book last month, I came here in search of the rickety propliners that I had always assumed to constitute the bulk of Tupolev's output. I am proved — as so very often — wrong.

What we have here is a fascinating archive spanning the whole gamut of Russian aviation. Divided into eight major categories, Tupolev's masterpieces from pre-war designs to pilotless drones are documented in full. There is a wealth of information on everything and a mass of excellent illustrations.

Highly recommended as a basic starting point for the researcher, although you will not need to venture much further beyond its allencompassing covers. My only criticism is that it does not pander to the passing ignorant by using NATO codenames, which means the casual reader is constantly forced to rack their memory to decide if the Tu-95 refers to the Bison, the Backside, or something else.

Call a bear a bear, I say. This aside it's a blinder.

GH

Bookshelf

MiG-19P

by Michal Ovcacik and Karel Susa

Price: £11.50

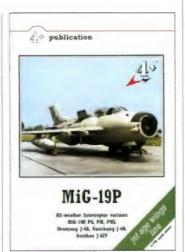
Publisher: 4+ Publications ISBN: 80-900708-9-2

Format: 212 mm x 297 mm, 36 pages

Cover: Softback

This book is ideal for the modeller. It contains numerous photos, both overall views and detail, with around 30 in colour and over 135 in black and white. There are 1/72 scale plans for all versions, including production variations and colour art for 18 aircraft from six air forces.

For the very reasonable price you also get a potted history of the MiG-19, including the Chinese-produced versions, a description and technical data. Versions covered are the MiG-19P, 'PG, 'PM, 'PML, Shenyang L-6A, Nanchang J-6B and the Guizhou J-



6IV. An excellent book for the enthusiast and modeller.

Mike Kingsley

Israeli Air Force Yearbook 2005

by Ofer Zidon and Shlomo Aloni

Price: TBA

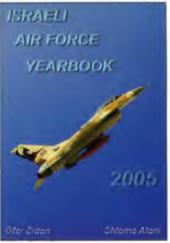
Publisher: Wizard Publications (Israel)

This softback book is a history of the Israeli Air Force from December 2004 to October 2005 and the review copy was supplied to us at Telford in November so you cannot be more up to date than that.

Each chapter covers one month and is made up of several small sections that has informative text illustrated with captioned photographs. To give you an idea of the content I will concentrate on the month of June

This chapter starts with the introduction of the Gulfstream V Nachshon into Israeli service. This is a specialist electronic intelligence gathering aircraft with a large number of lumps and bumps not normally seen on this top-of the-range biziet. The next section covers the activation of a new F-16 squadron, the Red Dragons, which is a dedicated aggressor unit whose dragon tail art combined with red fuel tanks makes for a very attractive subject that has featured on a recent Isra Decal sheet. The final section deals with the Graduation of Class 150 on Israeli Air Force day, and features aircraft that carried out displays for the occasion including the IAI-upgraded Magister, F-15I, C-130, F-16, AH-1 and UH-60.

The quality of the photographs is to a very high standard, and is ideal for the modeller as you can clearly see the



camouflage patterns and the way weathering has affected the airframes. If the aircraft serves in the IAF you will find a photograph of it in this book, which includes a section on the Historic Flight's celebrated black Spitfire and the use of unmanned aerial vehicles (UAVs).

A few years ago books like this would have been unheard of, as the Israeli Air Force was then so secretive about its aircraft. Now less than five months after the latest squadron's formation you not only have a decal sheet and resin detail set but also this superb reference. I am hoping that Wizard Publications make this an annual and I recommend it very highly to anyone with an interest in the modern day Israeli Air Force.

Model Master Series - 1

by Nico Deboeck

Publisher: Daco Publications with Revell
Cover: Softback

This first in the series of softback Model Master books, consisting of 46 high-quality colour pages with very nice photos of six builds, all to the highest standard. In English, but the quality of writing is not the best. The book, so it says, is aimed at the beginner, which is very laudable, but there are much better books in this genre. More of a 'beginners coffee table book', methinks. Tim Large



US Navy Hornet Units

Operation Iraqi Freedom Part Two Osprey Combat Aircraft Series No S8

Price: £12.99

Publisher: Osprey Publishing

ISBN: 1-841-768855

Format: 176 mm x 250 mm, 96 pages

Cover: Softback

Companion volume to Part One, which covered Hornet units in Southern Iraq. and refers to the five US Navy Hornet units deployed in Northern Iraq. Contains some stunning photography of Hornets on deck, in flight, and night-time take-offs.

As is usual with this series there are many colour side-views of aircraft from different units, and plenty of photos showing the weapons and stores carried for various mission requirements. The text explains the planning behind the missions and a lot of first-hand accounts by the pilots



themselves. As well as being a very informative read there is a plethora of detail here for the modeller. Mark O'Regan

F-15E Strike Eagle Units

In Combat 1990-2005 Osprey Combat Aircraft No 59

by Steve Davies and Chris Davey

Price: £12.99

Publisher: Osprey Publishing

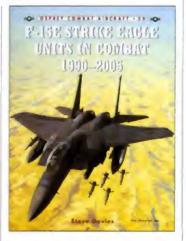
ISBN: 1-841-769096

Format: 176 mm x 250 mm, 96 pages

Cover Softhack

As the title suggests, this book lists all the F-15E Strike Eagle units in active combat from operations Desert Shield to Iraqi Freedom. It is packed with some fantastic photos taken in flight and on the ground, featuring lots of close-ups of the ordnance carried. There are also plenty of photos taken by the pilots themselves, and no fewer than 24 sideviews showing squadron markings and codes, plus appendices that list details of all operations flown by each squadron.

The majority of the text is devoted to first-hand accounts by pilots of their missions, and makes for a very



interesting read. Being a modeller and an aircraft enthusiast I can recommend this book to all. Mark O'Regan

History of Finnish Air Force No 7

by Kalevi Keskinen & Kari Stenman

Price: 27 Euros Publisher: Karl Stenman ISBN: 952-9932-5-3

Format: 252 mm x 175 mm Cover: Softback

Illustrations: Colour and black-and-white photographs and paint schemes

I believe I have correctly translated at least a part of the title of this excellent publication. Unfortunately the title is given only in Finnish. while the text is in both Finnish and English. This particular title of the series is dedicated to the use of

captured Soviet fighters in the Finnish Air Force during WW2. The Finns made wide use of captured aircraft obtained either by its own army or purchased from German war booty. The aircraft were restored by Finnish State aircraft factories and ground personnel in the field often showing feats of miraculous ingenuity. Use of LaGG-3, I-16, I-16UTI, I-153 and I-15bis types is covered.

Given the limited space in the book the text is adequate, though I would have liked to have seen better analyses of the differences between



sub-types, particularly for the LaGG-3 and I-16. The book also contains plans for all types of the aircraft covered, which is a nice touch, but I personally would not use them for modelling purposes.

All the photographs are black-andwhite and of perfect quality. Many show the minute peculiarities of the aeroplanes and their paint schemes and are extremely helpful from the modellers' point of view. In this respect, the book is a real treasury of excellent reference material. Konstantine Malinovsky

Suomen Ilmavoimien Historia 25:

Hurricane & Gladiator

by Kalevi Keskinen and Kari Stenman

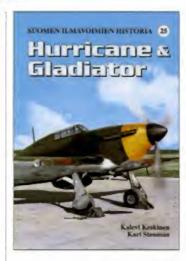
Price: TBA

ISBN: 952-99432-0-2 Publisher: Karl Stenmar

Format: 175 mm x 250 mm, 96 pages

Cover: Softback Language: Finnish/English

The Finns had only 30 Gladiators and a dozen Hurricanes, but this excellent little book spares no detail about any of them. You'd never find anywhere near this many photos - and good ones - devoted to a mere two score of RAF aircraft! A brief development and procurement history of each type is followed by details of operations on a unit-by-unit basis, colour schemes (text, plus nine colour profiles), air combats and kills, accurate 1/72 scale drawings, including the Hurricane IIB to cover the single ex-Russian example they repaired and put into service. Not surprisingly, both types faded away from lack of spares as the Continuation War dragged on, but



they were still flying recce missions into 1944.

There is also coverage of the Swedish volunteer participation in the Winter War. This booklet will delight all fans of Hurriboxes, Gladrags and Small Air Forces.

Brian Derbyshire

Warbird Tech Series Volume 39

Lockheed C-141 Starlifter

by Frederick A Johnson

Price: £11.99

Publisher; Midland Counties

ISBN: 1-58007-080-9

Format: 280 mm x 216 mm, 104 pages.

Cover: Softback

The effect of the Cold War upon the development of military equipment - and by default upon aviation in general - cannot be underestimated. By the 1960s, US military planners had realised the need for a longdistance heavy lift capacity, and the answer came in the shape of the Starlifter.

From its first flight in December 1963 the aircraft has been a prop for US foreign policy throughout the globe, so it is nice to see its development, history and achievements so neatly and concisely laid out in this excellent and wellplanned book.

Seven chapters and three appendices cover all areas of the aircraft's history, and although there



are plenty of pictures - more than enough to provide adequate information for the modeller - this is more of an historical reference than one of those books of profiles and guts shots so beloved of those who glue plastic. It's a book to read as much as a book to refer to, and as such can be highly recommended.

Air War Over East Yorkshire in WW II

by Paul Bright

Publisher: Flight Recorder Publications

ISBN: 0954-56-057-4

Format: 228 mm x 297 mm, 175pp

Cover: Hardback

What I did over Christmas, Part 2. In between blasting the modelling room with Halford's acrylic white, I was able to relax with this most excellent and entertaining publication, which arrived in the office in the nick of time - just before we broke up for the hols

Being a Yorkshire-dweller, if not a Yorkshireman by birth, it was doubly attractive, as the keen sense of involvement the book exudes was not entirely lost on me. It covers the entire WW2 period as the air war related to East Yorks, So of what use is it to the modeller you may ask?

Firstly, there is a mass of photographs, many I'd certainly never come across before, and a continuity to the narrative that puts the reader on the spot in a way more technical works of reference never do. Modelling, I never tire of saying, is either an art or a science. If it is an art then this is the book for you, as it will



transport you into your subject matter, without pausing to count the rivets along the way.

If that is too 'New-Age' an approach to book reviewing for you, then all there is left to say is that this is a beautiful, well-presented document, lovingly researched and highly readable. The mass of anecdotal account is priceless, and the research meticulous.

Les Autogires La Cierva

(La Cierva Autogiros)

by Jose Fernandez, Juan Arreaez Cerda and Arnaud Prudhomme

Price: 40 Euros Publisher: Editions TMA ISBN: 2-915205-04-3

Format: 220 mm x 305 mm, 192pages

With each page divided into bilingual text of French and English. this publication will certainly be most welcome on the bookshelves of both modellers and enthusiasts alike It all starts with an in-depth introduction to the man behind the machines, Señor Juan de la Cierva Codorniu, then moves onto a comprehensive look at all the marks of Cierva autogiro built, featuring sketches, three-views and black-andwhite photos.

The C-19 and C-30 - most produced versions of this revolutionary aircraft - are well represented with some excellent cutaways, scale plans and colour photographs of museum survivors.

The colour profiles are superb, a modellers' dream! My only disappointment in the book is that the final chapter, which focuses on



the service history of all the types flown, is only in French. Overall, this wealth of reference can be highly recommended and will certainly be invaluable to those modellers building the recent Azur C-30 kit, leaving only one problem: which colour scheme do you choose? **David Holman**

Brewster Model 239 [Parts 1a and 1b]

by Kaveli Keskinen and Kari Stenman

Price: £11.95 (each)

Publisher: Kari Stenma ISBN: 952-99432-4-5 (Part 1a) and 952-99432-3-7 (Part 1b)

Format: 176 mm x 250mm, 96 pages Cover: Softback

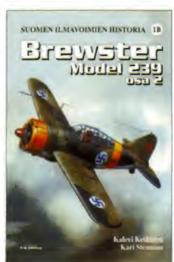
Illustrations' Colour and black-and-white photographs and colour profiles

Information on the ill-fated Brewster Buffalo is not in short supply. There are dozens of books describing the aircraft and its service career during WW2. Most mention and supply a short narrative on the service of the fighter in the Finnish Air Force, but none could even come close to the level of detail and coverage of these two volumes.

Finland was probably the only nation in the conflict that used the barrel-bodied fighter with a certain level of success and for the duration of hostilities. The two volumes of this book are well placed to cover the glaring lack of information on the usage of the Buffalo on the Eastern Front both against the Red Army VVS and the Luftwaffe. The high quality text in both Finnish and English covers the history of all the units which used the fighter and provides a huge amount of factual and anecdotal evidence.

Over 70% of the books comprise black-and-white and colour photographs of excellent quality.





Captions are given in both languages and they are great illustrations for the textual information. A number of colour profiles and drawings are supplied in the second volume, which is also crowned by a long list of all the aerial victories achieved in the type by Finnish pilots. Overall, it is an excellent edition, which I recommend to anyone interested in the history of the Buffalo, but also

for all those eager to learn more about the history of WW2. For those specifically interested in the Finnish Air Force this book is a definite 'must have'. Highly recommended!

Konstantine Malinovsky

WarbirdTech Series Volume 41

MiG-29 Fulcrum

by Yefim Gordon & Peter Davison

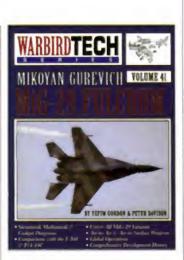
Price: £11.95

Publisher: Speciality Press ISBN: 1-58007-085-X

Format: 212 mm x 297 mm, 104 pages Cover: Softback

This book offers a wealth of information from the MiG-29's conception, development, variants, service use, performance compared with other aircraft and even what kits are available. There are plans varying from 1/200 to 1/140 scale for the production MiG-29A, 'UB, 'M, 'S, 'SM, 'SMT and 'K versions.

The photos are mainly in blackand-white, but the 15 pages of detail plates are what will interest modellers most. To some the small colour photograph of the instrument panel on the back cover might alone



be worth the price of this book. Highly recommended.

Mike Kingsley



SAM Publications and MPM have got together again to give you the chance to win one of these splendid kits from different eras of aviation

Special prizes! Focke Achgelis & Sea Hornet

Win either of these superb kits by simply writing down your name and address on a postcard, and send it to:

Achgelis/Hornet Competition **SAM Publications** Media House, 21 Kingsway, Bedford, MK42 9BJ

Open to our worldwide readership. You have until April 1st 2006 to enter.



Feedback

Masterly modelling

Letter of the month

Dear Sir.

very much enjoyed the article and photographs of Norman Lees wonderful 'solid' models in September 2005's SAMI, and thought you may be interested in the enclosed snippet from the January 1940 issue of Men Only magazine.

Many years ago I tried my hand at solid modelling too, but alas nothing survives to this day. However, just to show what can be done with ancient The article from Men Only (my, how that publication changed over the years! Ed.) was entitled Model Warfare, by G V Galwey It reads, in part, as follows:

"It begins on quite a modest scale. Someone pulls out a penkinde and starts to whittle out the shape of a boat from a chip of frewood. When the stage of smoothing is reached a helpful messmate suggests a chip of glass or china to give a real finish to the hull. The infection is spreading.

After the next leave somebody returns

After the next leave somebody returns with stender laths of featherlight ballia wood, sandpaper, a tube of cement with the penetrating smell of dope" and elaborate instructions and plans. There is an unholy fascination in watching him at work. Your fingers lich and you hold your breath as you watch the cackhanded brute and think how



much neater you would be. The germ is in your blood now.
At last a trim Spitfire or Humcane.

At last a tim Spitfire or Humicane emerges from under the durnsy fingers. The whole mess is uneasy and walks delicately until it is announced that the glue has set.

By this time ambition has been fired or, if you like, the infection has reached epidemic proportions. Chisels, spokeshaves, and planes armie, sent from home or knocked-off. From ship's library or public library come reference books with all the scantings and details of the Cutty Sark or the Nelson. A whip-round produces the price of good wood to work on and good blueprints to work to. The armanents in the war on boredom have begun to pile up. Aircraft, ships, tanks. barrage balloons in miniature they go into action. Something is being created in a world launched on destruction.

technology, and prompted by those fabulous old advertisements reproduced in your article, I've enclosed for your amusement a couple of pictures of a very much reworked FROG Miles Master Mk III. Moulded in bright yellow plastic, and bearing a price tag of 1s 6d (7 1/2p

for our post-decimalisation readers. Ed), the kit must have been well over 40 years old. As such it is woefully inaccurate, but being the only Master III on offer (I see it is still around under the Eastern Express label), there's nothing else for it but to exercise some good old-fashioned modelling skill if you want one in your line-up.

I wonder how many other oldies like me there are out there who take great delight in turning ancient lemons into gems?

Tim Prosser

Carlisle, Western Australia

Congratulations to this month's winner of the Revell 'Letter of the Month Competition'. Tim receives a Revell Air Brush Set



A sparkling gem from an 'ancient lemon' — reader Tim Prosser's superbly convincing Miles Maste III from the vintage FROG kit

Faded Day-Glo

Dear Sir.

comment on the artwork for the Meteor TT.20 of the Royal Danish Air Force in December's SAMI. The 'whitish' areas on the profile should be Day-Glo orange wingtips and rear fuselage. If left outside for a couple of years the aircraft would appear as shown — the roundels would be weathered too, though. Here are pictures of a T-33 (rudder is Roundel Red) and PBY-6





Catalina of the Royal Danish Air Force. The Greenland fliers were obviously intent on keeping up the 'glow' for obvious reasons! The top wing of the Catalina is also Roundel Red.

Palle J Christensen

via email

Last word on those Eduard ads

Dear Sir

feel that I must comment on the outbreak of political correctness in recent Feedback pages regarding the Eduard adverts. Your latest correspondent in the January issue claims that the Eduard adverts are "blatently sexist" and that she wants the "offensive ads removed from your publication".

I asked my wife if she felt the same (being the same age as your correspondent), and she didn't feel that it was offensive or sexist.

Please can we keep PC out of modelling magazines. If we are not careful, the PC brigade will stop us replicating 'sexist' nose-art on B-17s and insist on the editorial staff wishing us 'Happy Winterval' next year instead of Happy Christmas to save upsetting someone.

Martin Baggott

via email

Eduard's "Tight fit advertising campaign has ended, at least for the time being — a decision apparently not driven by PC lobbying. Rumours that they plan to use male models for their next campaign are unconfirmed. Meanwhile, Mr Buggott, we wish you and all our readers a belated (and if non-PC, so be it!) Happy New Year Ed.

Michelle Choquette, lady modeller extraordinary

Dear Sir.

know I am a bit late in responding to your Editorial question about where are all the lady aviation modellers out there, but here is my two cents' worth on the subject. Okay, here in the US there was one very famous scale modeller who was a woman of extraordinary talent. Her name is Michelle Choquette, Did you ever hear of her and her stunning 1/32 scale aircraft models? Well, she was first featured in the March 1993 issue of Fine Scale Modeler. That great profile on her displayed her beautiful 1/32 scale jets like her incredible scratchbuilt A-10A Warthog, the old Revell Mirage converted into a US Navy aggressor F-21A (IAF Kfir C2), Revell's old offering of the Harrier GR.1 into a USMC TAV-8D and her superdetailed Revell 1/32 F-4E Phantom. All were absolute joys to just look at, and even be used as reference, because they were so well built!

However, her best scale aviation model ever built was the awesome ID Models 1/32 scale B-58 Hustler vacformed kit! That one was featured in the March 1995 issue of FSM and is just breathtaking in its detail and size. Michelle spent over 125 hours on the landing gear alone and worked about 400 hours total on the kit itself, mostly

superdetailing the hell of the B-58's unusual cockpit and ejection seat arrangement. Awesome work and something not seen anywhere else

Sadly though, Michelle passed away in 1996 or '97 of cancer. She left behind I do believe a loving and very supportive husband and two children and an impressive collection of big, beautiful 1/32 scale jets. There has never been a lady modeller like her ever since. What a shame she did not live on and show our sisters, daughters, mothers and wives, and all female aviation enthusiasts, that a woman can indeed build great looking scale models of jets and WWII airplanes just as good, if not better, then us guys.

Something for you to think about as you wonder why more women don't get into the scale modelling hobby.

Max Brandt

via email

Max, I well remember Michelle Choquette's outstanding models from FSM's features. They more than prove my Editorial rebuttal of that absurd idea that women can't match we deve men when it comes to modelling skill. Ed.

Pinchbeck praised

Dear Si

ust a short email to commend you and your staff on Neil Pinchbeck's outstanding article about the Short 184 Seaplane and Fred Rutland in November's SAMI. The melding of the excellent model build with a remarkable story of courage (and considerable sang froid!) set in its historical context is the kind of article that keeps your magazine on top.

I also like the new, computer generated art covers. Keep up the great work! I look forward to every issue.

Leonard Williams

Ohio, USA via email





RAF Sabre kit sought



officing my September 2005 copy of SAMI, my heart gave a little flutter, more in anticipation than expectation seeing the additional model kit catalogue enclosed. Eagerly, I scrutinised each page slowly, but alas what I sought was not to be seen. Stumped again!

In 1977 I decided to specialise rather than continue making different models in various scales. I elected to restrict my interest to 1/72 scale aircraft of the RAF and Fleet Air Arm from 1950 to the present, space being a significant factor. It proved to be a

bad time to make this change, as not a lot was available except via the second-hand market: £20 for a Frog/Novo Wyvem? Visiting stalls at airshows proved very fruitful, and numerous required kits were obtained.

Many years have passed. I moved, the loft now the home for my everincreasing collection, yet one type still eludes me. Missing from my collection

Bf 109 parts catalogue

Dear Sir.

ith reference to the parts catalogues mentioned in Martin Dawson's

Bf 109E-4 Book Review (SAMI, November 2005, p.1089), you might be interested to know that copies of catalogues for several '109 models and Fw 190 etc. are available on CD from Peter Ewbank at 5/26 Mary Street, Mount Eden, Auckland 1003, New Zealand, email deusex@xtra.co.nz. He is always selling on eBay at very reasonable prices, e.g. \$20.00 for the Me 109G parts catalogue.

Tomi Cuniver

via email

is the Canadair Sabre Mk 4/F-86B. F-86D, 'E and 'F variants are plentiful. Yes, times have moved on. The above issue of SAMI advertised 1/48 scale decals for RAF Sabres, but where are the kits? Is there a 1/72 scale kit? OK, the Sabre was only an interim RAF fighter pending arrival of the Hunter, however 430 were purchased under the Mutual Aid Defence Pact, equipping at least six squadrons. The Sabre also has its part in jet aviation history.

Alike Chaplin

Worcestershire

end Your Letters To...

Please send your comments, questions and feedback to the editional address, clearly structed "Feedback"

Readers' Feedback

The views expressed in this column are not necessarily those of SAM Publications. Reader's address details must be supplied but we will only publish them if the letter is considered to the a request for assistance or further correspondence from the readership.

This page will be used to publish letters we receive from the readership that relate to articles previously published in this magazine. These letters will add to update or revise such articles.



1/48 scale Bell AH-1S Cobra by Matti Sallamaa

IPMS Helsinki Open 2005

Photos by Kai Asplund of the Aviation Shop in Helsinki (www.aviationshop.fi) from IPMS Helsinki's Exhibition and Competition held at the Finnish Aviation Museum at Helsinki-Vantaa Airport in November 2005.



1/48 Focke-Wulf Fw 200C-3 Condor by Jari Miettine







ıman Avenger 1/32 scale by Jari Mietti



Russian Air Force Hawker Hurricane IIb by Jari Miettinen





1:72 F-104C Starfighter by Viktor Krogius



1/48th scale Ki-84 Frank by Jari Miettinen



Jari Miettinen' 1/48 Revell F-86D Sabre Dog in Yugoslav Air Force colours



1/48 scale Ki-84 Frank by Jari Miettinen



1/48 scale Messerschmitt Bf 110G-4 by Pekka Tuominen











